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Transactions of the fourth International Sanitary Conference ...

Pan American Union

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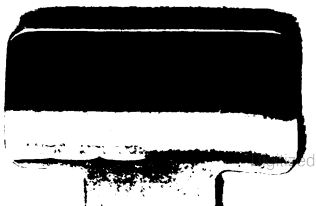

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21

Jos Gellert

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SPECIAL NOTE.

Mr. John Barrett, the Director General of the Pan American Union, an institution devoted to the development of comity and commerce among the American nations, and which acts incidentally as the office of the International Sanitary Bureau, presents his compliments to the readers of this volume, and, in expressing the hope that they will enjoy a perusal of its contents, desires to state that if they care for special information concerning the Latin-American Republics they can obtain it by addressing him at the Pan American Union offices, Washington, D. C.

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TRANSACTIONS OF THE FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS

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HELD IN SAN JOSÉ, COSTA RICA
DECEMBER 25, 1909, TO
JANUARY 3, 1910

PUBLISHED AND DISTRIBUTED UNDER THE AUSPICES OF THE
PAN AMERICAN UNION, JOHN BARRETT, DIRECTOR-
GENERAL, WASHINGTON, D. C.
1910

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PRESS OF BYRON S. ADAMS.
WASHINGTON, D. C.

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CALL FOR THE FOURTH INTERNATIONAL SANITARY CONVENTION.

In accordance with the resolution adopted at the Third International Sanitary Conference, held in the City of Mexico, December 2-7, the date December 25, 1909, to January 2, 1910, has been fixed for the assembling of the Fourth International Sanitary Conference in the City of San José, Costa Rica.

The following official correspondence in regard to the call and the provisional program of the Conference are printed in the interest of the Conference.

INTERNATIONAL SANITARY BUREAU,
WASHINGTON, D. C., U. S. A., June 12, 1909.

HON. JOHN BARRETT,
Director, Bureau American Republics,
Washington, D. C.

SIR:

In accordance with the resolution adopted at the Second International Sanitary Convention of American Republics authorizing biennial conventions, and in accordance with the action taken at the last convention in Mexico City, December, 1907, I enclose herewith a call for the Fourth International Sanitary Convention of the American Republics to meet in San José, Costa Rica, December 25, 1909, to January 2, 1910.

In accordance with paragraph 7 of the resolutions relating to international sanitary police, adopted at the Second International Conference of American States in Mexico January 29, 1902, I have to request that you take such measures as you deem advisable to make announcement of this call.

It is also requested that the Bureau of American Republics in making this announcement also make representations to the government of Costa Rica in order that there shall be issued through its Department of Foreign Relations invitations to the several countries to be represented.

Respectfully,
(Signed) WALTER WYMAN,
Chairman, International Sanitary Bureau.

FOURTH INTERNATIONAL SANITARY CONVENTION OF THE AMERICAN REPUBLICS,

TO BE HELD IN SAN JOSÉ, C. R., DECEMBER 25, 1909, TO JANUARY 2, 1910.
INTERNATIONAL SANITARY BUREAU OF THE AMERICAN REPUBLICS,

WASHINGTON, D. C., June 14, 1909.

In accordance with the resolution adopted by the Second International Sanitary Convention of the American Republics, which authorizes biennial conventions, and in accordance with the action taken at the Third International Sanitary Convention, it is hereby announced that the Fourth International Sanitary Convention of the American Republics will be held in San José, C. R., December 25, 1909, to January 2, 1910.

It is respectfully urged that every Republic of the Western Hemisphere be represented at this convention, both those that have been heretofore represented and those which have not taken part in the previous conventions.

In accordance with resolutions adopted at previous conventions, there will be considered practical means for the adoption of measures intended to obtain the sanitation of cities, and especially of ports. This subject has, therefore, been included in the provisional program, which has been prepared by the President-elect of the coming convention with the view to continuing the work of previous conventions.

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Provisional Program for the International Sanitary Convention of the American Republics, to be Held in San José, C. R., December 25, 1909, to January 2, 1910.

1. Reports presented by the different delegates in regard to the sanitary regulations and laws adopted, and in force, in their respective countries, since the last meeting.
2. Special report by each official delegate regarding the manner in which the resolutions adopted in the three previous Conventions have been put into practice in their respective countries.
3. Reports in regard to sanitary conditions in ports, and measures proposed for the improvement of such sanitary conditions (with special reference to the principal ports).
4. Reports relating to the registration of the movement of population and the rate of mortality in each country, specifying those of ports and principal cities.
5. Sanitation of cities, and especially of ports.
6. Measures for the protection of passengers that embark in vessels from infected ports.
7. Discussion of measures against the introduction of diseases not included in the Convention of Washington of 1905.
8. Sanitary models or forms to be adopted by nations forming part of this Convention.
9. Discussion on sanitary measures relating to yellow fever, bubonic plague, tuberculosis, malaria, and other diseases, in conformity to new discoveries or experiences.
10. Discussion on measures relating to venereal diseases.
11. Discussion on the necessity of the adoption, by the European nations, of the Convention of Washington and other sanitary measures subsequently adopted by this Convention, with respect to such colonies as they have in America.
12. Discussion on new discoveries with respect to the transmission of yellow fever and malaria, besides the mosquito bite.
13. Organization in each country represented at this Convention of a commission of three physicians or health officers to act as delegates of the International Sanitary Bureaus of Washington or Montevideo, and to form part of the International Sanitary Information Committee of the American Republics.

By direction of the International Sanitary Bureau of the American Republics.

WALTER WYMAN,
Chairman.

JUAN J. ULLOA,
Secretary.

As requested in the communication of Dr. Walter Wyman, Chairman of the International Sanitary Bureau, the Director of the International Bureau of the American Republics has addressed a letter to the diplomatic representatives of the countries interested in the Conference transmitting a copy of the call, and the Provisional Program, which has also been given to the press, and will be printed in the Bulletin of the Bureau.

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DELEGATES.

1.—Colombia	Dr. Martín Amador.
2.—Costa Rica	Dr. Juan J. Ulloa. Dr. Carlos Durán. Dr. José María Soto A. Dr. Elías Rojas.
3.—Cuba	Dr. Hugo Roberts.
4.—Chile	Dr. Manuel Camilo Vial.
5.—El Salvador	Dr. Alfonso Quiñones M.
6.—United States of America	Surgeon-General Walter Wyman. Passed Asst. Surgeon J. W. Amesse. Passed Asst. Surgeon R. H. von Ezdorf.
7.—Mexican United States	Dr. Eduardo Licéaga. Dr. Jesús Monjarás.
8.—United States of Venezuela	Dr. Pablo Acosta Ortiz. Dr. Luís Razetti.
9.—Guatemala	Dr. Nazario Toledo.
10.—Honduras	Dr. Fernando Vásquez.
11.—Nicaragua	Dr. Vicente Castro Cervantes.
12.—Panamá	Dr. Belisario Porras.

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OFFICERS OF THE CONFERENCE.

President.

Doctor Don JUAN J. ULLOA, Consul-General of Costa Rica in New York.

Vice-presidents.

Doctor WALTER WYMAN, Surgeon-General, Public Health and Marine Hospital Service of the United States of America.
Doctor EDUARDO LICÉAGA, President of the Supreme Board of Health of Mexico.
Doctor MANUEL CAMILO VIAL, Chile.
Doctor MARTÍN AMADOR, Colombia.
Doctor ALFONSO QUIÑONES M., Salvador.
Doctor PABLO ACOSTA ORTIZ, United States of Venezuela.
Doctor NAZARIO TOLEDO, Guatemala.
Doctor FERNANDO VÁSQUEZ, Honduras.
Doctor BELISARIO PORRAS, Panama.

Secretaries.

Doctor Luís RAZETTI,, Venezuela (Spanish Section).
Doctor R. H. VON EZDORF, United States (English Section).

Committee on Credentials.

Licenciado Don PEDRO IGLESIAS, Under-Secretary for Foreign Relations of Costa Rica.
Doctor BELISARIO PORRAS, Panama.
Doctor NAZARIO TOLEDO, Guatemala.

Executive Committee.

Doctor JUAN J. ULLOA, Costa Rica.
Doctor WALTER WYMAN, United States of America.
Doctor EDUARDO LICÉAGA, Mexican United States.
Doctor PABLO ACOSTA ORTIZ, United States of Venezuela.
Doctor MANUEL CAMILO VIAL, Chile.
Doctor CARLOS DURÁN, Costa Rica.

Committee on Sanitation of Ports and Cities.

Doctor WALTER WYMAN, United States of America.
Doctor JESÚS MONJARÁS, Mexican United States.
Doctor R. H. VON EZDORF, United States of America.
Doctor LUIS RAZETTI, United States of Venezuela.
Doctor EDUARDO LICÉAGA, Mexican United States.
Doctor JOSÉ MARÍA SOTO, Costa Rica.

Committee on Malaria and Yellow Fever.

Doctor EDUARDO LICÉAGA, Mexican United States.
Doctor HUGO ROBERTS, Cuba.
Doctor CARLOS DURÁN, Costa Rica.
Doctor ELÍAS ROJAS, Costa Rica.
Doctor J. W. AMESSE, United States of America.
Doctor FERNANDO VÁSQUEZ, Honduras.

Committee on Measures for Protection of Passengers.

Doctor CARLOS DURÁN, Costa Rica.
Doctor R. H. VON EZDORF, United States of America.
Doctor JOSÉ MARÍA SOTO A., Costa Rica.
Doctor PABLO ACOSTA ORTIZ, United States of Venezuela.
Doctor NAZARIO TOLEDO, Guatemala.
Doctor ALFONSO QUIÑONES M., Salvador.

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Committee on Sanitary Documents.

Doctor HUGO ROBERTS, Cuba.
Doctor EDUARDO LICÉAGA, Mexican United States.
Doctor J. W. AMESSE, United States of America.
Doctor MARTÍN AMADOR, Colombia.
Doctor LUÍS RAZETTI, United States of Venezuela.

Committee on Tuberculosis, Beri-Beri and Trachoma.

Doctor WALTER WYMAN, United States of America.
Doctor ELÍAS ROJAS, Costa Rica.
Doctor JESÚS MONJARÁS, Mexican United States.
Doctor MARTÍN AMADOR, Colombia.
Doctor FERNANDO VÁSQUEZ, Honduras.
Doctor ALFONSO QUIÑONES M., Salvador.

Members of the International Sanitary Bureau of Washington.

Chairman.

Surgeon-General WALTER WYMAN, of the United States.

Secretary.

Doctor JUAN J. ULLOA, Costa Rica.

Members.

Doctor EDUARDO LICÉAGA, Mexican United States.
Doctor JUAN GUITERAS, Cuba.
Doctor PABLO ACOSTA ORTIZ, Venezuela.
Doctor RHETT GOODE, United States of America.
Doctor CAMILO VIAL, Chile.

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DELEGATES OF THE INTERNATIONAL SANITARY BUREAUS OF WASHINGTON OR MONTEVIDEO AND MEMBERS OF THE INTERNATIONAL SANITARY INFORMATION COMMITTEE.

Chile	Dr. Ricardo Dávila Boza. Dr. Lucio Córdoba. Dr. Pedro Lautaro Ferrer.
Colombia	Dr. J. M. Lombana Benetti. Dr. Ricardo Amaya Arias. Dr. Juan David Herrera.
Costa Rica	Dr. Carlos Durán. Dr. Elías Rojas. Dr. José María Soto A.
Cuba	Dr. Juan Guiteras. Dr. Enrique B. Barnet. Dr. Arístides Agramonte.
United States of America	Dr. A. H. Glennan. Dr. J. W. Kerr. Dr. John W. Trask.
United States of Mexico	Dr. Eduardo Licéaga. Dr. Jesús Monjarás. Dr. Nicolás Ramírez de Arellano.
United States of Venezuela	Dr. Pablo Acosta Ortiz. Dr. Carlos Manuel Cabado. Dr. Luís Razetti.
El Salvador	Dr. Tomás G. Palomo. Dr. Francisco Guevara. Dr. Rafael B. Castro.
Guatemala	Dr. Salvador Ortega. Dr. Juan J. Ortega. Dr. José Azurdia.
Honduras	Dr. José M. Ochoa Velásquez. Dr. Ignacio Castro. Dr. Juan Angel Arias.
Nicaragua	Dr. Luís Debayle. Dr. Rodolfo Espinoza. Dr. Juan B. Sacaza.
Panamá	Dr. Luís Urriola. Dr. Alfonso Preciado. Dr. Augusto S. Boyd.

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Program of the Fourth International Sanitary Convention of the American Republics.

SAN JOSÉ, COSTA RICA.—DECEMBER 24, 1909, TO JANUARY 3, 1910.

December 24th

4 p. m.—Preliminary meeting at the Offices of the Secretary of Foreign Affairs.

December 25th

3 p. m.—Inaugural Session of the Convention at the National Theater.
Opening of the Conference by the President of the Republic.
Address by the Secretary of Foreign Affairs.
Address by the President of the Convention.
Brief address by a member of each Delegation in alphabetical order of names of the nations represented.
Appointment of Committees.
8.30 p. m.—Gala performance at the National Theater.

December 26th

9 a. m.—Visit of the Delegates to the San Juan de Dios Hospital and to the Chapui Asylum.
3 p. m.—Visit to the President of the Republic.
4 p. m.—Visit to the Lyceum of Costa Rica, the Penitentiary, and other places of the city.

December 27th

9 a. m.—Reading of the report that each Delegate must present in the name of his country, containing the different matters to which the Provisional Programme of the Conference refers to.
The reading of reports by the Delegates shall be in alphabetical order of names of the nations represented at the Convention.
The time granted for the reading of each one of these reports is limited to 15 minutes.
Those papers requiring a longer time must be presented in extract; the publication of all subjects treated shall be made in the respective Records of the Fourth Convention.
2 p. m.—Reading of Reports (continued).
7 p. m.—Dinner offered to the Delegates to the Convention by the President of the Republic at the Presidential Mansion.
At this dinner there will only be two toasts: the offering and the response.

December 28th

9 a. m.—Reading of reports (continued).
Discussion of reports presented regarding the compliance by different countries of the resolutions adopted at the previous Conventions.
2 p. m.—Discussion of the reports relating to the sanitary condition of the ports, and the measures to be proposed for the correction of the defects therein found.
9 p. m.—Reception at the residence of the Secretary of Foreign Affairs.

December 29th

9 a. m.—Reports relating to statistical records of population and mortality of the respective countries, and discussion of same.
Discussion of papers presented in reference to Sanitary measures against yellow fever and malaria.
2 p. m.—Discussion of papers referring to protective measures against tuberculosis, bubonic plague, trachoma and beri-beri.

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December 30th

9 a. m.—Reading of reports to be presented by the different delegations with respect to the appointment of committees of three physicians referred to in article 13th of the provisional programme.

Discussion of papers on the sanitation of cities, and especially of seaports.

Measures for the protection of passengers embarking in vessels sailing from contaminated ports.

December 31st

9 a. m.—Discussion of the models of sanitary documents that are to be used by the nations participating in the Sanitary Convention of Washington.

Discussion of other subjects related to the programme of the Fourth Sanitary Convention.

9 p. m.—Society ball at the National Theater, dedicated to the Delegates.

January 1st

1.30 p. m.—Visit to the President of the Republic.

January 2d

7.30 a. m.—Visit to the Asylum of Las Mercedes.

January 3d

8 a. m.—Visit to the coffee treatment plant and plantation of H. Tournon & Co., in San José.

2 p. m.—Adjourning session.

Discussion of the subject referred to in article 11th of the Provisional Programme.

Election of a place where the next Convention shall be held.

Appointment of President for the Fifth Sanitary Convention.

Appointment of personnel of the International Sanitary Office of the American Republics.

Appointment of Committees.

Brief address of farewell by a member of each delegation, and response by the President of the Fourth Convention.

January 4th and 5th

Visit to the Hospital and Quarantine Station in Limón.

Excursion to Rio Banano and plantations of the United Fruit Co. in the Zent Division, offered by the Company to the Delegates of the Fourth Convention.

Note.—The ordinary sessions of the Convention shall be held in the Hall of Congress.

Only 15 minutes time will be granted for the reading of papers submitted to the Convention.

In the discussion of these papers the Delegates may take the floor once only, and in exceptional cases twice, for five minutes at a time.—JUAN J. ULLOA, President of the Fourth International Sanitary Convention of the American Republics.

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MEMBERS OF THE INTERNATIONAL SANITARY BUREAU OF WASHINGTON.

DR. PABLO ACOSTA ORTIZ,
Venezuela.
DR. JUAN GUITERAS,
Cuba.

DR. JUAN J. ULLOA,
Costa Rica,
Secretary.
DR. WALTER WYMAN,
United States,
Chairman.
DR. EDUARDO LICEAGA,
México.

DR. MANUEL CAMILO VIAL,
Chile.
DR. RHETT GOODE,
United States.

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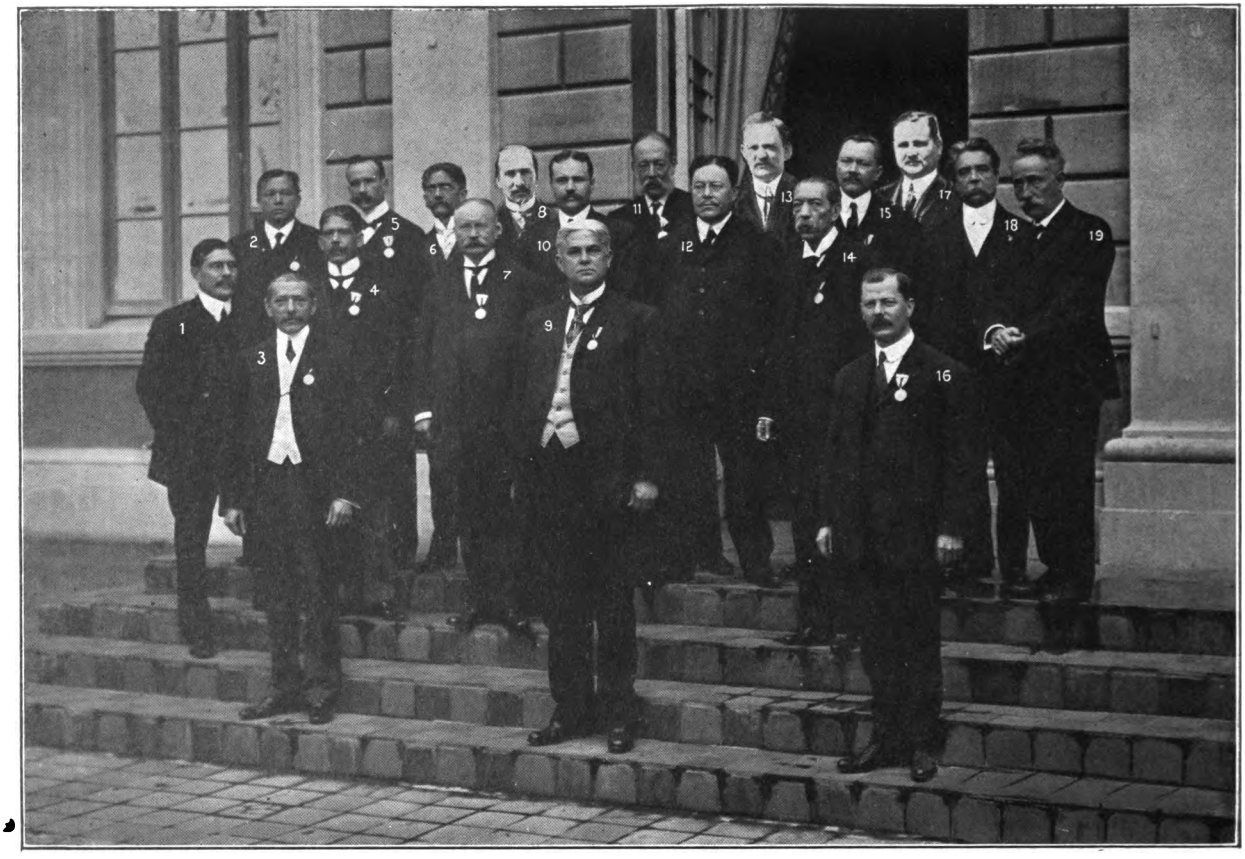

DELEGATES IN ATTENDANCE AT THE FOURTH INTERNATIONAL SANITARY CONFERENCE, IN SAN JOSÉ, COSTA RICA.

(Photograph taken January 1, 1910, on the steps leading into the National Congress, where the meetings were held.)

1. Dr. José María Soto, Costa Rica. 2. Dr. Pablo Acosta Ortiz, Venezuela. 3. Dr. Luis Razetti, Spanish Secretary, Venezuela. 4. Dr. Fernando Vásquez, Honduras. 5. Dr. Hugo Roberts, Cuba. 6. Dr. Belisario Porras, Panama. 7. Surgeon-General Walter Wyman, United States. 8. Dr. Castro Cervantes, Nicaragua. 9. Dr. Juan J. Ulloa, President of the Conference, Costa Rica. 10. Dr. J. W. Amesse, United States. 11. Dr. Nazario Toledo, Guatemala. 12. Dr. Elías Rojas, Costa Rica. 13. Dr. Alfonso Quiñones, Salvador. 14. Dr. Eduardo Licéaga, Mexico. 15. Dr. Martín Amador, Colombia. 16. Dr. R. H. Von Ezdorf, English Secretary, United States. 17. Dr. Manuel Camilo Vial, Chile. 18. Dr. Jesús Monjarás, Mexico. 19. Dr. Carlos Durán, Costa Rica.

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FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

FIRST DAY—SATURDAY, DECEMBER 25, 1909.

Afternoon—Opening Session.

At three o'clock in the afternoon there assembled at the National Theatre of the City of San José, capital of the Republic of Costa Rica, the Delegates of the American Republics to the Fourth International Sanitary Conference of American Republics, to wit: Dr. Martín Amador, of Colombia; Drs. Juan J. Ulloa, Carlos Durán, José María Soto A., and Elías Rojas, of Costa Rica; Dr. Hugo Roberts, of Cuba; Surgeon-General Walter Wyman, and Passed Assistant Surgeons J. W. Amesse and R. H. von Ezdorf, of the United States of America; Drs. Eduardo Licéaga and Jesús Monjarás, of the Mexican United States; Drs. Pablo Acosta Ortiz and Luís Razetti, of the United States of Venezuela; Dr. Nazario Toledo, of Guatemala; Dr. Fernando Vásquez, of Honduras; and Dr. Belisario Porras, of Panama. The President of the Conference, Dr. Juan J. Ulloa, appointed Surgeon-General Wyman and Dr. Licéaga a committee to escort the President of the Republic, Honorable Cleto González Víquez, to the stage. This high official was accompanied by the President of the Supreme Court, Honorable Alejandro Alvarado, the Secretary for Foreign Affairs, Honorable Ricardo Fernández Guardia; the Secretary of the Interior and Police, Honorable Alfredo Volio; the Secretary of the Treasury and Commerce, Honorable Alberto Echandi; and the Secretary of War and Marine, Honorable Vidal Quiroz, and by the Committee just appointed. The inauguration of the Conference was then begun in the following manner:

THE PRESIDENT OF THE REPUBLIC. The Fourth International Sanitary Conference is declared opened.

THE SECRETARY FOR FOREIGN AFFAIRS delivered the following speech:

"MR. PRESIDENT, MESSRS. DELEGATES:

"We have the pleasure to behold today a new triumph of the notion of fraternity and the sense of association that are about to transform the world. For the fourth time the American nations assemble together for the purpose of building in conjunction the strongholds destined to protect our lives against the attacks of swarms of invisible foes that desolate us and retard progress. Such is the grand task entrusted to the illustrious champions of the most noble and useful of sciences, whom we have the honor to see congregated on Costa Rican soil.

"The regularity with which the International Sanitary Conventions instituted by the Second Pan-American Congress held in the

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city of Mexico have taken place, is evident proof that the majority of the nations of the Western Hemisphere have recognized the indisputable usefulness and the practical wisdom of this measure, highly justified by the very important work carried out in 1902, 1905 and 1907, when the first three conferences were held.

"In this era of intense civilization in which the will of the people reigns over that of the rulers, the peaceful struggles have a greater tendency every day to offset those which require drastic measures to decide difficult issues; but these new engagements, however peaceful, are not less cruel. The brave soldiers of industry and commerce, the self-denying workers of science perish by thousands in the uninterrupted forward march, and we have hardly conquered an unremitting foe when hundreds of others with which blind Nature afflicts us, spring forth, because it is a divine law that no progress may be attained without a sacrifice.

"The painful spectacle of this cruel battle undoubtedly inspired in a thinking brain—a brother of the one that engendered the admirable institution of the Red Cross—the most noble idea that gave life to these conventions; and just as in Geneva were framed the regulations to ameliorate as much as possible the evils of war, so in Washington and in Mexico precautionary measures were adopted against the dangers derived from commercial relations that, while being the most solid foundation of prosperity and the best guarantee of peace, are a constant menace to the health of the peoples. The vessel loaded with wealth, messenger of civilization and bearer of the written thought, very frequently happens to transport the germs of the most terrible epidemics, transformed into a Herald of Death.

"For the radical isolation of olden times which, aside from being inhuman was causing enormous losses to commerce, modern science has substituted means of defense no less effective and that which has the advantage of safeguarding common interests; but in order to attain the desired results produced by these means, unity of action is indispensable, and such is the main object of these conventions, the healthy influence of which is evident and which in the future will produce untold benefits; because the work accomplished so far has not been confined to this one point; public hygiene in all its aspects has been the subject of profound study on the part of the specialists who gave it full form. The eradication of yellow fever, malaria and other diseases that scourge many American countries; the sanitation of cities and particularly of seaports, are as many other vital purposes of these learned assemblies.

"One of the problems that is more powerfully attracting the attention of thinkers and statisticians is that of the prolongation of individual life, which is a factor in the increasing prosperity and power of the nations. The amounts of money that are invested year after year in the interest of hygiene represent an enormous figure, and even in countries as small and modest as this one, a large portion of the state revenues is devoted to the work of sanitation. Our delegation can tell you that through perseverance and enormous expenses we have succeeded in eradicating yellow fever from our ports; we have supplied with drinking water mostly all the cities and towns of the Republic and we have constrained the propagation of leprosy. And all this, which seems

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little compared with what we yet have to accomplish, is, in reality, a great deal, judging from the number of lives that have been saved.

"Costa Rica is proud of having been the place designated for the meeting of the Fourth International Sanitary Convention; she is proud to have upon her soil the eminent men delegated by the American Nations to co-operate with their learning and experience in this essentially practical and humanitarian task.

"Messrs. Delegates: in the name of the President of the Republic and of the Government of Costa Rica, I tender you a hearty welcome, and earnestly trusting in the success of your labors, I hope that the admirable task initiated in Washington, continued in Mexico, and which you are now about to consolidate here, shall produce the fruits that the world of Columbus rightly expects from your learning, your wisdom and your love for humanity."

THE PRESIDENT, Dr. Ulloa, then spoke as follows:

"MR. PRESIDENT, MESSRS. DELEGATES, LADIES AND GENTLEMEN: Costa Rica, highly delighted and full of pride for the distinction which has been bestowed upon her, wears to-day a gala dress, and with open arms extends a most hearty welcome to the illustrious guests who do her honor by their presence.

"My fatherland, Messrs. Delegates, small in territory but great in high-minded purposes and legitimate ambition, greets you all most affectionately and offers to you, side by side with a humble but hearty hospitality, her ardent wish that your sojourn amongst us may be pleasant, and advances the concourse of her will and meagre elements for the accomplishment of the humanitarian task which assembles here today such distinguished guests.

"You, apostles of a science whose gospel is the prevention of the desolating ravishers of populations, that even in the midst of modern progress mercilessly destroy life and wealth, are called upon to condense, in wise measures of practical execution, the scientific discoveries that the investigating genius of the present time has been wresting from nature, and to whose beneficial influence we owe the control of the scourges which were being caused by yellow fever, cholera, bubonic plague and other diseases which are transmissible through the channels of social and commercial intercommunications.

"The profitable teachings derived from scientific discussion must be condensed—as far as the Convention which we are inaugurating here today is concerned—in resolutions and agreements tending to safeguard our fellow citizens against the noxious effects of relentless foes, whose formidable strongholds have been stormed by the miscroscope and chemical reaction, and their booty delivered into the hands of the laboratory and of the clinics, so that those who have charge of the difficult task of maintaining public health may, with perfect knowledge of the matter, determine the means of which those foes avail themselves for their astounding propagation, and recommend, accordingly, the proper measures to arrest contagion.

"Preventive hygiene has been, and shall continue to be, the subject of important study for all those who strongly endeavor to prevent or to diminish the limits of action of contagious diseases. Hippocrates,

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in his treaty on airs, waters and premises, written four hundred years before the coming of Christ, brings forth principles and measures, many of which are included today in scientific works from the pens of modern hygienists. The importance of several of the articles from the Code of Moses is today recognized by health authorities, and the good results derived from their observance is demonstrated, amongst other things, in the relative longevity of the Jewish race.

"Following the text of the maxim, 'a healthy mind within a healthy body,' the Greeks were extremely careful in the hygienic culture of physical and mental faculties. The Romans left us fair examples of sanitary engineering in their aqueducts and main sewer.

"Numerous examples of peoples and governments who take great pains to improve public health, by enacting and enforcing regulations tending to prevent the propagation of diseases and to better the physical resistance of the human race, can be found in the pages of History.

"However, the development of hygiene as a science is of recent origin, and to the English belongs the honor of having been the first to give it shape in the form of State Sanitation, with the establishment of the British General Register Office, in 1838.

"Since then much work has been done in the conscientious study of the definite principles of sanitary laws, in all the nations that occupy an important place in the roll of civilization; and to this end, the bacteriological discoveries—through the demonstration of the force of microscopic agents, as producers of infectious diseases—have largely contributed in the last twenty years.

"But, gentlemen, sanitary science is as yet defective, and although much has been accomplished within the last few years in the line of educating and conquering old and ignorant prejudices, and attracting popular attention rapidly towards its importance and its resulting benefits, there is yet much to be done, and we all must contribute with our efforts, no matter how small they may be, towards the progressive advancement of a science which seeks the betterment of humanity, and this should be the subject of primary attention for all governments that endeavor to further the wellbeing of those who have entrusted them with their interests and their destinies.

"Not wishing to be very lengthy, I shall not refer extensively to the statistics which clearly demonstrate how much we have gained in the world by the enforcement of measures against smallpox, cholera, plague, yellow fever, tuberculosis and other contagious diseases, and therefore I will only refer here to the following important points:

"Three hundred years ago the rate of mortality in London was 80 per 1000; today it is less than 17.6 per 1000.

"In the Eighteenth Century the victims of smallpox in Europe reached the surprising figure of fifty millions; since the discovery of the vaccine, smallpox causes few deaths in countries where vaccination is obligatory or where good care is taken to have this measure properly enforced.

"Owing to the ever-increasing application of sanitary measures, the annual rate of mortality has progressively diminished in England, and today hundreds of thousands of lives are saved, thanks to the practical application of hygienic principles.

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"In the United States of North America, according to the census of 1900, the diminution in the number of deaths per annum, as compared with those in 1891, is reported as follows:—In the Borough of Manhattan, of the City of New York, 4,780; in Cincinnati, 1,200; in Buffalo, 1,000; in Albany, 600, and in similar proportion in the other towns of the country. In what is called "registered area of the United States," which includes 24,358,177 inhabitants of the population of cities of that country, distributed in towns of 8,000 or more inhabitants and 9,399,634 inhabitants of rural population, there was a comparative difference in the mortality rate in the years 1890 and 1905 as follows, according to reliable statistics contained in a recent report: in diphtheria it diminished from 70.1 per 100,000 to 19.9 owing to the application of the antidiphtheric serum; in scarlet fever from 13.6 to 6.8; in malaria from 22.1 to 3.9; in typhoid fever from 46.3 to 28.1; in consumption from 245 to 168.2. In the registration area the number of deaths in general dropped from 19.6 per 1,000 to 16.2. The foregoing proportions represent the approximate saving of 125,280 lives per annum, and forcibly demonstrate the benefits derived from the observance of sanitary prescriptions.

"From 1866 to 1881 the yearly average of typhoid fever cases treated in the hospitals of Munich was 594, that is to say, 3.32 per 1,000 inhabitants, and the average number of deaths from this disease was 208, or 1.15 per 1,000. From 1881 to 1888, after the drainage system and water supply were improved, the yearly average of typhoid fever cases in the hospitals dropped to 104, or 0.42 per 1,000 inhabitants, and the average number of deaths caused by the same disease dropped to 40, or 0.16 per 1000 inhabitants.

"Important improvements are noted on the same line in the United States of North America, owing to the unremitting attention given to sanitary affairs in the last few years. Notwithstanding the ever-increasing population on account of the landing of ignorant immigrants devoid of all sense of cleanliness, the mortality rate of towns has been diminished; by the promulgation of sanitary ordinances wisely enacted and strongly enforced; by well built and properly cared for streets; by dwelling houses constructed according to plans where sunlight and proper ventilation are duly regarded; by the isolation of the sick, the careful protection of the healthy and the progressive education of the people, who now begin to grasp the great importance of the improvement and maintenance of public health.

"Within the last fifteen years the mortality rate has been diminished, in the city of New York, from 25.4 to 18.39 per 1,000; in Chicago from 19.1 to 13.84; in Philadelphia from 20.76 to 17.68; in Boston from 23.4 to 18.45, and in similar proportion in the other principal cities.

"Unfortunately, gentlemen, in the large majority of countries of Latin origin on the American Continent, we cannot exhibit, for the present, reliable statistics on the subject, and we must make superhuman efforts so that our peoples—especially the present generation and the one that is rising for the future—may grasp the importance of sanitary science; to give to education, from the general hygienic standpoint, an important place in the curriculum of schools, and to work

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for the diffusion of sanitary principles by means of lectures, conferences, pamphlets written in language within the reach of the general public and by practical articles in the periodical press.

"All contagious diseases should be constantly investigated, and the governments and hygienists should endeavor to diffuse by all possible means the teachings obtained from their researches, pointing out clearly and distinctly the practical methods to be employed by the public, so as to be able to arrest their propagation.

"Instructors of hygiene and adequate literature within the reach of everybody should be provided by governments and benefactors of humanity, and they should pursue a restless campaign of sanitary education, because this is the strongest weapon that we can use in the struggle for the prophylaxis of the communicable diseases whose scourges are diminished in a relative proportion to the adoption of methods advised by Hygiene, and the vigor with which they are enforced.

"At the three previous conventions we have succeeded in making great strides towards the development of the plan which should guide us in framing up a Sanitary Code, to be obligatory for the present upon all the nations which constitute the American Continent, and which shall be the standard of action for all the authorities who are invested with the duty of protecting the different communities that, though they may be governed by different Constitutions, are sheltered under the same protective mantle of Sanitary Science upholding the noble banner of common welfare.

"Neither the resistance offered by old prejudices nor the protest of selfish rights should detain us in the promulgation of sanitary ordinances, because judicial science as well as medical science are in constant evolution, and the very minute that the latter discovers new principles that are incompatible with the present organization, the spirit of the former will also find convenient means by which individual interest and liberty may live in perfect harmony with public health. And, gentlemen, it matters nothing whether the present legislation has not incorporated in its Codes all the restrictions which Sanitary Science regards as indispensable; it is up to the statesmen to decide the issue; our calling is, over and above everything, to determine the best methods tending to the improvement and maintenance of health.

"The International Sanitary Conventions of the American Republics, which are being held every two years, are the result of the great interest taken by the countries of this hemisphere to improve their respective hygienic conditions and to adopt uniform measures for their mutual protection in order to prevent the communication of such diseases as are transmissible by travelers and by articles of commerce.

"Much commendable work has been done in the three conventions held previously to this one, and we have made great progress in the road which we have chosen, by adopting resolutions, many of which are today the fundamental principles of regulations enacted for the purpose of preventing the introduction and propagation of diseases, without placing unnecessary hindrances to commerce.

"The Convention held in Washington in 1905, which was nothing more than a modification of the International Convention held in Paris in 1903, but amended with important articles referring to yellow

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fever, in accordance with perfectly defined principles of its propagation through the sting of the mosquito *stegomya calopus,* has been legally accepted by twelve of the American Republics, and we should endeavor to have the other nine Republics accept it without delay, as in this way we should not be compelled to adopt resolutions resulting in drastic measures that would hinder commercial intercourse with such countries as are unable to offer the guarantees demanded by modern Sanitary Science.

"Important resolutions were adopted during the Convention which was held in the City of Mexico in 1907, against tuberculosis, malaria, trachoma and beri-beri. Many of these resolutions should be incorporated in the International Sanitary Code, which shall be the supreme law of this Continent, as far as sanitation is concerned. During the present convention we must continue the discussion of protective measures against tuberculosis and malaria, and perhaps it would not be amiss to discuss other contagious diseases.

"One of the most important tasks before the Fourth Convention will be that which refers to the sanitation of cities and specially of sea-ports, and it is to be hoped that the reports of the Delegates and the papers to be read on this subject shall furnish the necessary data for the adoption of resolutions tending to the immediate correction of defects which are at present to be found in the great majority of the ports of this Continent, which defects constitute a formidable menace to countries having commercial intercourse with them.

"We ought, therefore, gentlemen, to prevail upon our respective governments for the enactment and enforcement of necessary ordinances, so as to make effective such resolutions as are adopted in our conferences, and in this way we will prevent our travel and commercial communications from suffering the restrictions and limitations to which said communications with countries, where sanitary laws are neglected, shall be submitted.

"Inasmuch as we do not pretend, to all intents, to have said the last word on that which we have agreed upon at the three previous Conventions, we must discuss the teachings derived from investigations and practical experience in order to modify in a just manner such prescriptions as are not in accordance with the latest scientific discoveries.

"We have already initiated relations between the International Sanitary Office in Washington and that of Paris, and it is to be hoped that in the future we shall have agreed upon the means to give the Sanitary Code, in the framing of which we are at present occupied, a universal character, which today is only Pan-American.

"At least we must insist upon the acceptance of our sanitary ordinances by European countries, as far as those which have colonies in this continent are concerned, and this is one of the other subjects which shall be discussed during the sessions that we are now inaugurating.

"The uniformity of health bills, certificates and other sanitary documents in connection with shipping and traffic in the ports, is of the utmost importance and I hope that this point shall be decided at this conference.

"Gentlemen, the task that we have on hand is very difficult indeed, and of great import; the community of interests represented by the

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flag of Continental Sanitation compels us to work with a will and to learn from one another so as to complement the work, for the execution of which we assemble periodically under different skies, but always guided by the same star.

"Messrs. Delegates, may your sojourn in our midst be a pleasant one and may Humanity and Civilization bless you all."

THE CHAIRMAN. We shall now proceed with the program, and in accordance therewith one member of each Delegation shall, in alphabetical order, deliver a brief address. I request that the addresses be as short as possible. The Delegate of Chile not being present, the Delegate of Colombia, Dr. Martín Amador, has the floor.

DR. AMADOR. Mr. President, Mr. Chairman, Honorable Delegates: Colombia is pleased to send, through me, its cordial greeting to this land of liberty, and stable order and peace, where we have arrived without any obstacle, because there is engraved in the hearts of its citizens that love for work which uplifts them, and enables them to advance in the path of civilization and progress of nations.

Seven days ago I received telegraphic instructions to take part in these scientific deliberations, and if the lack of time prevents me from gathering the material with which I could offer my ideas in behalf of American sanitation, I can assure you that Colombia has always directed her efforts towards enforcing sanitary measures in her ports, and that from her coasts no danger has ever come to the safety of the nations with which she maintains commercial relations. I shall watch your labors closely, and it shall please me to inform the Government of that wealthy and vast country of the advanced ideas of the eminent hygienists among whom I have the high honor of occupying a place. Gentlemen, I greet you kindly, and hope that you will favor me with your good will.

THE PRESIDENT. The Chairman of the Delegation of the United States of America, Surgeon-General Walter Wyman, has the floor.

THE CHAIRMAN OF THE DELEGATION OF THE UNITED STATES OF AMERICA. Mr. President of the Republic and Mr. President of the Convention, Delegates, Ladies and Gentlemen:

It is a privilege, on behalf of the Delegates from the United States, to express to all of you the pleasure which we have in coming to Costa Rica to be received so cordially, as we have been received, and to anticipate, as we do anticipate, such a pleasant time during the Christmas holidays.

We are glad, not only to meet in Costa Rica, but we are glad to meet again the Delegates of the several American Republics. We believe that these conventions, held every two years, are productive of a vast amount of good to the people of all the Republics. They are educational in their tendency, and, more than that, they bring together, as from heart to heart, the different peoples of our several Republics.

The American Delegates, leaving, some of them from Boston and some of them from New Orleans, only a few days ago, sailing down the broad Atlantic and across the Gulf of Mexico, have for the first time cast their eyes on the beautiful coast of Costa Rica, the "rich coast"; and we were greatly impressed with the beauty of the coast and the enterprise and prosperity of its principal seaport, Limon.

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We have not, of course, as yet visited the other seaport on the Pacific, but we found, President Gonzalez, that there is much more than the beautiful coast, as we rode over those mountains so grand and beautiful, alongside that magnificent river. We felt that we had never witnessed scenery so picturesque and so grand, and since our arrival in San José, the beautiful capital of your Republic, we have been greatly impressed with its handsome buildings and fine parks and likewise with the hospitality and kind entertainment which has been extended to us.

It seems to me, Mr. President of the Convention, that you did wisely in selecting Christmas Day for the opening of the Convention. It is a day of joy, it is a day of Christian love and forethought, of expressions of good will and hope for the future; and to begin a sanitary convention on this day seems to me especially appropriate, for there is no class of work in which human intellect engages that is nearer to the Christian religion, or more helpful to it, than the work of sanitation, looking after the prevention and elimination of diseases, the establishment of hygienic conditions so beneficial to all classes from the highest to the lowest, to the rich and to the poor. There is nothing more conducive to the advancement of the virtues taught by Christianity than good health and living under proper conditions. Moral reforms are brought about better if you have sanitary reforms to begin with.

So we look forward to a very useful and profitable as well as pleasant convention.

In the name of the Delegates of the United States, I wish for all of our hospitable friends in Costa Rica and for all of our brother Delegates and for all the Republics of the Western Continent a Merry Christmas and many happy returns of the day.

THE PRESIDENT. The Chairman of the Delegation of the Mexican United States, Dr. Eduardo Licéaga.

THE CHAIRMAN OF THE DELEGATION OF THE MEXICAN UNITED STATES. Mr. President of the Republic, Mr. Secretary of State, Mr. President of the Convention, Ladies and Gentlemen: The Mexican Delegation to the Fourth International Sanitary Convention of the American Republics has the honor, in the name of the people and government of the Mexican United States, to greet the people and the government of Costa Rica, a nation as small in territorial extension and population as it is great in the highmindedness of its inhabitants, who, inspired by the love of work and the desire for progress, have found in peace the most substantial support for the promotion of agriculture, the expansion of its commerce, the prosperity of its industries, the spread of the principles of hygiene, the isolation of the unfortunate ones who lack fortune or the power of reasoning, and the extension of public instruction to all social classes.

As messengers of peace, we come to co-operate with our modest contingent to the task of our brothers from the other Republics of the American Continent, in seeking the best practical solution of the scientific problems that confront the whole humanity, since that task has for its object the *preservation of health by means of the prevention of diseases; the prolongation of life, and the betterment of the human race.*

The achievement of these lofty ideals is our aim. This aim has persuaded us to abandon our distant homes, to come here and meet those

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who also bring with them similar purposes; to continue the war against the common enemy—*transmissible disease*. In the midst of this cultured community of honest workers who have given us cordial and splendid hospitality we come to combine our efforts in the benefit of science.

Gentlemen, in the name of the Mexican nation, and in declaring the sincerity of our purposes in the discharge of the mission that has been intrusted to us, we greet His Excellency, the President of this Republic, the Delegation of this country—especially its illustrious Chairman—our distinguished colleagues of other delegations, the children of this country, which is the Lacedemonia of the New World. and the noble and charming ladies of Costa Rica, of whom we can say, without hyperbole, that they are the beautiful half of the human race.

THE PRESIDENT. Through an oversight, I postponed the Delegate of Cuba, and I beg him to excuse me for the mistake. The Delegate of Cuba has the floor.

THE DELEGATE OF CUBA. Honorable President of the Republic; Messrs. Delegates: The Republic of Cuba, deeply interested in this Conference, has honored me by appointing me as its Delegate.

In the name of Cuba I have the honor of greeting you and of expressing the hope that the fullest success will crown your efforts.

THE PRESIDENT. The Delgate of the United States of Venezuela, Dr. Pablo Acosta Ortiz, has the floor.

THE DELEGATE FROM THE UNITED STATES OF VENEZUELA. Mr. President of the Republic; Mr. Minister for Foreign Affairs; Mr. President of the Convention: The Delegation of Venezuela, in honoring itself by taking seat in this learned assembly, fulfills the pleasant duty of presenting, through me, bearing the name of our Government, the homage of its respectful salutation to His Excellency, the President of the Republic, and, in the person of its first magistrate, the cultured people of Costa Rica.

It congratulates itself with its companions in labor, the honorable representatives of the sister Republics, expressing fervent hopes that the scientific assembly that is being held to-day in this interesting city will be fertile in wise decisions, which will prove of vital importance and meet the transcendental interests of the different nationalities here assembled; since we all unanimously desire to see our beloved America prosperous and great, having as our standard the invigorizing banner of progress, and as our guiding inspiration, that glorious liberty that our forefathers conquered so heroically and sealed with their generous blood in the fields of battle.

There is no greater honor or glory than that bestowed today upon this beautiful country that opens to us its doors with graceful nobleness, to realize the most interesting of codes and thus pay homage to the most humanitarian of sciences.

THE PRESIDENT. The Delegate from Guatemala, Dr. Nazario Toledo.

THE DELEGATE FROM GUATEMALA. Mr. President; Messrs. Delegates; Ladies and Gentlemen: Having been designated by the Republic of Guatemala to represent it in the Fourth Sanitary Conference of the American Republics, I at first hesitated to accept that honor,

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but finally decided to receive it, realizing, as I did, that in declining it I would have deprived myself of the pleasure of accompanying the illustrious doctors so justly appointed by the respective governments to represent them in this Conference, as I would also have missed the opportunity of hearing their enlightened lectures on the subject of sanitation of ports.

In the name of Guatemala, and in the name of humanity, I greet my colleagues, the distinguished Delegates to the Fourth Conference of Costa Rica, and I congratulate myself on being among them.

THE PRESIDENT. The Delegate of Honduras, Dr. Fernando Vásquez.

THE DELEGATE FROM HONDURAS. Mr. President of the Republic; Mr. President of the Convention; Messrs. Delegates: In the name of the Republic of Honduras I have the honor of tendering most respectful greetings to the Government and people of Costa Rica, and to the distinguished Delegates of the sister Republics of America.

Honduras, in spite of its financial difficulty, is most willing to co-operate to the best of her ability in the work of sanitation in the Western Hemisphere.

I am convinced that due to the scientific experience and competency of my illustrious colleagues here assembled the Fourth International Scientific Conference will result in manifold benefits for the American countries.

Let us not relax in our efforts, working with firmness and resolution until we can say with pride that yellow fever has been eradicated from America; that malaria has lost its power of devastating cities; that bubonic plague and cholera have been ejected from our shores, and tuberculosis forced back to its last stand.

Bring to us your ideas; we offer you fertile soil and healthful climate. Come to help us in our agricultural and industrial tasks, and co-operate with us in our efforts to secure for all our countries the same height attained by the most prosperous nations of the world.

THE PRESIDENT. The Delegate from Panama, Dr. Belisario Porras.

THE DELEGATE FROM PANAMA. Mr. President of the Republic; Mr. Secretary for Foreign Affairs; Mr. President of the Convention; Messrs. Delegates: In behalf of the Government of Panama, which I have the high honor of representing in this Fourth International Sanitary Conference, I bring here, in the first place, a message of concord and affection for our smallest sister, the beautiful Republic of Costa Rica, and her worthy Executive, the modest and illustrious Tribune, Don Cleto Gonzalez Viquez; and in the second place, a message of congratulation to all my colleagues in the Convention here assembled, with the sincere wishes of my Government for the complete success of the labors to-day inaugurated.

The Government of Panama wishes, besides, that the great interest that it has in all sanitary questions be known to all, it being convinced as it is that there is not, nor can there be, any human progress in the betterment of public hygiene and health which are the basis of such progress. The cities of Panama and Colon, transformed, as if by a magic trick, from the most unhealthy cities into cities where no infectious disease is known and where even malaria has forever been banished, are to-day proclaiming thereby, and by the extraordinary ad-

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vances that the Isthmus of Panama has made in less than five years of independent life, that the sanitation of cities is closely interwoven with the progress of civilization of nations. For this reason my Government is desirous of contributing and co-operating with all possible means towards every enterprise that may tend to that advance and betterment of international hygiene. It is, therefore, my pleasant duty to make it known to my honorable colleagues that all measures adopted by this illustrious Convention shall be fulfilled by my country with absolute faithfulness.

THE PRESIDENT. The Delegates from the Republics of Chile and El Salvador will arrive from Puntarenas inside of two days, and in one of the following sessions we shall have the pleasure of hearing their remarks. Following the same order established in previous Conferences we shall now proceed with the appointment of Vice-Presidents. I submit to the consideration of the Delegates the following names:

Vice-Presidents:

SURGEON-GENERAL WALTER WYMAN, Public Health and Marine Hospital Service of the United States.....United States of America.
DR. DON EDUARDO LICÉAGA, President of the Supreme Council of Health of Mexico.....Mexico.
DR. MANUEL CAMILO VIAL.....Chile.
DR. MARTÍN AMADOR.....Colombia.
DR. HUGO ROBERTS.....Cuba.
DR. ALFONSO QUIÑONES M.....Salvador.
DR. PABLO ACOSTA ORTIZ.....United States of Venezuela.
DR. NAZARIO TOLEDO.....Guatemala.
DR. FERNANDO VÁSQUEZ.....Honduras.
DR. BELISARIO PORRAS.....Panama.

THE PRESIDENT. On account of powerful reasons, I can not now fulfill the duties assigned to me by the First International Sanitary Conference of the American Republics in appointing me as its permanent secretary. Therefore, I appoint as secretary to the Fourth Conference Passed Assistant Surgeon R. H. von Ezdorf, Delegate from the United States of America, and Dr. Luis Razetti, Delegate from the United States of Venezuela.

(The Secretaries took their seats.)

THE PRESIDENT. Through an involuntary omission on my part, the representative of the International Bureau of the American Republics, Dr. Albert Hale, has not read his speech, and he now has the floor.

THE REPRESENTATIVE OF THE INTERNATIONAL BUREAU OF THE AMERICAN REPUBLICS. Mr. President of the Republic; Mr. President of the Conference; Messrs. Delegates; Ladies and Gentlemen: The International Bureau of the American Republics, which I have the honor of representing, has close relations with the International Sanitary Conferences, and for this reason nothing more natural than that the Bureau should wish to participate in this assembly so important to the cause of altruistic sciences. I am the bearer of the cordial greetings of the Bureau, and I am officially intrusted by its Governing Board with the mission to present to this Conference the fervent wishes of that body for the good success of your labors.

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The Honorable John Barrett, Director of the Bureau, and Dr. Francisco Yánes, Secretary of the Bureau, wished to have come personally to greet you, but as at the present time they have to attend to the completion of our new building, they conferred upon me this most pleasant privilege, requesting me to represent them and to greet you in their name.

Here, in this healthful and beautiful capital of one of the twenty-one Republics of America, we are the guests of the National Government. On my part, and as a member of the Bureau, I wish to remind you—hosts and guests alike—that you all have in Washington your permanent home, and that when in the future you shall have an opportunity to visit that capital, that the doors of the International Bureau of the American Republics, which belongs to all the children of the New World, are and shall always be open for you.

THE PRESIDENT. This is all that we have to do to-day. The first ordinary session of the Fourth Conference will be held next Monday, at nine o'clock A. M., in the Hall of Sessions of the Constitutional Congress. I beg to remind the delegates to deliver their credentials to the Secretaries before withdrawing from the session. The session is closed.

(The session was closed at 4.30 P. M.)

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SECOND DAY—MONDAY, DECEMBER 27, 1909.

Morning Session.

The Convention was called to order by the President, Dr. Juan J. Ulloa, at 9 A. M., the following Delegates being present: Dr. Martín Amador, of Colombia; Dr. Hugo Roberts, of Cuba; Surgeon-General Walter Wyman and Passed Assistant Surgeons R. H. von Ezdorf and J. W. Amesse, of the United States; Dr. Eduardo Licéaga and Dr. Jesús E. Monjarás, of the Mexican United States; Dr. Nazario Toledo, of Guatemala; Dr. Fernando Vásquez, of Honduras; Dr. Belisario Porras, of Panama; Dr. Pablo Acosta Ortiz and Dr. Luis Razetti, of the United States of Venezuela; Dr. Juan J. Ulloa, Dr. Carlos Durán, Dr. José Maria Soto, and Dr. Elias Rojas, of Costa Rica.

THE PRESIDENT. Before beginning the order of the day, I beg to remind the Delegates that at seven o'clock to-night will be held the banquet that the President of the Republic gives in honor of the delegations to the Conference, and that at noon a group will be taken of all the Delegates.

For the reading of the reports to be presented by the different delegations, we shall follow the alphabetical order of the nations represented. The reading of the reports shall be limited to fifteen minutes; those which on account of their length may require a longer time to be read shall be presented in résumé, and will be published in full in the proceedings.

The Delegate from Chile being absent the Delegate from Colombia, Dr. Martin Amador, has the floor.

DR. AMADOR read the extract appearing in the Appendix.

THE PRESIDENT. The Delegate from Cuba, Dr. Hugo Roberts, has the floor.

DR. ROBERTS. (His report appears in the Appendix.)

THE PRESIDENT. The Delegate from the United States of America, Dr. Walter Wyman, has the floor.

DR. WYMAN. (The report of the American Delegation will be found in the Appendix.)

THE PRESIDENT. I think it in order to call the attention of the Delegates to the fact that they may make such remarks as they may see fit with respect to the reports just read, and to the end that all the Delegates may be informed of the most salient points of the important reports read by Dr. Wyman, the official translator of the Congress will make the corresponding translation. Afterwards, all those desiring to do so may take the floor to request explanations of the Delegates from Colombia, Cuba, and the United States of America, and make any pertinent remarks before proceeding with the perusal of the following reports.

In stating that the Delegates may make such remarks as they see fit regarding the reports just read, I do not mean that we are going to

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enter into the discussion of the same, because this is a procedure that we will take up tomorrow; I simply wanted it understood that some remarks may be made and information requested in regard to such points as do not seem very clear, so that we may prepare ourselves for the discussion that will take place afterwards. So, if any one wishes to take the floor he may make the request to that end.

(Translation was made of the report of the Delegation of the United States of America.)

THE PRESIDENT. There being nobody who wishes to take the floor, we shall proceed with the reading of the reports. The Delegate from the Mexican United States, Dr. Eduardo Licéaga, has the floor,

DR. EDUARDO LICÉAGA read the report of the Mexican Delegation, which is found on page 167 of the Appendix.

THE DELEGATE FROM VENEZUELA, DR. LUIS RAZETTI. I beg the Chairman to allow me to postpone the reading of my report until this afternoon's session.

THE PRESIDENT. The Delegate from Guatemala, Dr. Nazario Toledo, has the floor.

DR. TOLEDO. I request the permission of the President and of all my colleagues that I be allowed to finish my report today and read it tomorrow, because due to the haste in which I was appointed to represent Guatemala and to my long years of absence from that Republic, I am not as yet in possession of all the necessary data.

THE PRESIDENT. Granted. The Delegate from Honduras, Dr. Fernando Vásquez, has the floor.

DR. VÁSQUEZ. (His report appears on page 165 of the Appendix.)

THE PRESIDENT. I request one of the Vice-Presidents to take the Chair for a few moments. Following the custom adopted in other Conferences, and according to the alphabetical order of the nations represented, I call upon the Delegate from Colombia, Dr. Amador, to take the Chair.

(Dr. Amador took the Chair.)

THE VICE-PRESIDENT. Following the order established, the Delegate from Panama, Dr. Belisario Porras, has the floor.

DR. PORRAS. (He read the report that appears on page 175 of the Appendix.)

(At this moment the President again took the Chair.)

THE PRESIDENT. If any of the Delegates wishes to make any remark in regard to the reports of the representatives of Mexico, Honduras, and Panama, he may request the floor.

I beg the Delegates from Guatemala and from Venezuela, who were allowed to postpone the reading of their reports, to present them in the session of tomorrow morning, because in the afternoon session no report will be read, as we shall proceed with the discussion of the subjects that according to the official program we must take into consideration.

DR. PORRAS. I request the floor.

THE PRESIDENT. The Delegate has the floor.

DR. PORRAS. Gentlemen, a while ago we had the honor of hearing the report of the illustrious physician, Dr. Licéaga, who represents the Mexican United States, and this enlightening report, so worthy of our praise, has given me doubt as to one single point. I will take

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the liberty to make a suggestion in order that the competent ones may discuss it. My remark relates to the second point, Third Convention, which says: "In the campaign against yellow fever, the States of Yucatan, Campeche, Chiapas, Tabasco, Oaxaca, Vera Cruz, and Tamaulipas intrusted the Federal Government with the direction of said campaign. When the epidemic of bubonic plague appeared in Mazatlan the States on the Pacific littoral likewise intrusted the Federal Government with the direction of the campaign against that disease." I take the liberty to express an opinion in regard to the mission that is given a government in relation to public health. I beg to suggest the idea that public health be intrusted to an autonomous board with sufficient powers to act and that shall be free from administrative hindrances and obstacles.

DR. LICÉAGA. I am going to make the explanation demanded by the Delegate from Panama. Undoubtedly, his attention is struck by the fact that only certain States are mentioned, those being the ones on the Gulf littoral; the same thing was done with those on the Pacific Coast when bubonic plague invaded our territory. The States have complete independence in sanitary matters when the epidemic does not invade the whole country.

I am going to make this statement: The Mexican United States are independent from one another; they are sovereign in matters of public legislation; they are in the same case as the United States of America. The Federal Government has gradually acquired for the Union the control over matters of international sanitary police; but it has not as yet all the control that it needs. The Mexican Government cannot, the States having the same independence, enact laws and regulations applicable to all. But the conviction that such a measure is wise causes that all the Federal States, when a public calamity exists, to surrender their special powers to the Executive of the Nation. It is a fact that such is the national sentiment. And if I have incorporated that paragraph to which the Delegate from Panama alludes, it is because I want to do justice to the good sense that prevails in the different States of the Mexican Union, in surrendering those powers when epidemics spread throughout the nation.

Is this not the explanation that Dr. Porras wishes? If he desires another, I beg him to say so, and I shall answer him with pleasure. Anyhow, I am going to complete my idea.

I was saying that the good sense that obtains in the different States of the Mexican Republic has been manifested in this manner: That they surrender their powers to the supreme authority of the Federal Government, so that it may have control in cases of epidemics that attack the whole country; and as I justly consider that those States were thereby worthy of praise I make mention of such ones as had vested their powers in the Federal Government to stamp out yellow fever and bubonic plague, just as is now being done in the case of malaria.

If this is not the explanation that Dr. Porras wanted, I am ready to give him the additional answers that he may desire.

DR. PORRAS. Indeed, Mr. President, that is not the explanation that I had requested. I knew that the Republic of the Mexican United States was constituted according to the federal system; that in na-

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tions having such political constitution the States are sovereign and independent, and the Federal Governments cannot interfere with certain legislative prerogatives of the States.

But that was not my objection. I consider that governments are good—when they are so—to look after what is called the safety of individual rights, and the maintenance of the guaranties of such rights; but governments are almost never good for other things. At least, that is the way I look at it. Governments are not fit to be entirely intrusted with public health, because the bureaucratic system, as a general rule, involves many obstacles and difficulties, partialities, and weaknesses. And public hygiene should be free from all those things and requires a manner of procedure independent from such obstacles.

What I want to say is that there should be established in the American Republics boards of health independent from the government, with sufficient authority to act by themselves, and finally, really autonomous. That is the point.

DR. LICÉAGA. If that is the idea of my esteemed colleague, Dr. Porras, I can tell him that such a board exists in Mexico. It is called "The Supreme Board of Health," and that Supreme Board is provided with powers to meet the requirements of which Dr. Porras spoke, in such a way that my idea might be defined in this way: In cases of epidemics invading the whole country there is only one head that thinks and only one hand that executes. And the proof of my assertion is as follows: An epidemic of bubonic plague broke out in Mazatlan in the month of October, 1902; on that occasion the Government gave that Supreme Board of Health the necessary powers to direct the campaign against the epidemic and to enforce it itself; and so effective it was, that the assistance of the Federal Government never failed; the States surrendered all their powers to that body, and the money that was obtained from national contributions was placed in the hands of said board to be by it spent, and the result of all this was that in the period of six months the plague completely disappeared from the State in which it begun—an epidemic that in all the countries which it has invaded could not have been eradicated for a long period; for instance, in San Francisco, according to the report presented by the illustrious Dr. Wyman, the epidemic lasted until February, 1908, that is to say, a period of six years, because it invaded that city in 1902; whereas, in our country, it prevailed only during a period comparatively short, because it broke out in October, 1902, and it disappeared in May, 1903, and since then it has not reappeared.

I believe that the point raised by my distinguished colleague, Dr. Porras, has been fully explained.

THE PRESIDENT. I must state that the minutes of the inaugural session have not been read because they are not as yet ready, but they will be for the session of this afternoon.

As we are going to close the session in a little while I beg Dr. Licéaga to take the floor for the purpose of extending to the Delegates an invitation from the Chargé d'Affaires of Mexico.

DR. LICÉAGA. Gentlemen, the Chargé d'Affaires of Mexico has requested me to invite you to a reception that will be held in the Legation at 9 o'clock in the evening of Wednesday, the 27th instant, which

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invitation is for the Delegates as well as for their families; and I, on my part, request them to accept our hospitality for a few moments.

THE PRESIDENT. After the session is closed the Delegates will please gather at the entrance of this building, as the photographer will take a group of us all. The session is closed.

It was 11:15 A. M.

Afternoon Session.

The Convention was called to order at 2:30 P. M. by President Ulloa, the following Delegates being present: Drs. Amador, Roberts, Wyman, Amesse, von Ezdorf, Licéaga, Monjarás, Vásquez, Acosta, Razetti, Ulloa, Durán, Soto and Rojas.

The Spanish minutes of the inaugural session on December 25th were read and approved.

THE ENGLISH SECRETARY, DR. VON EZDORF. I beg to state that the English minutes of the same session will be presented in the morning.

THE SPANISH SECRETARY, DR. RAZETTI, read a card from the Delegate of Panama, Dr. Porras, in which he excuses himself for not attending the session, because he had to be present at a match of polo which had been dedicated to him.

THE SPANISH SECRETARY read the report of the Committee on Credentials, which is as follows:

"The undersigned, members of the Committee on Credentials of the Fourth International Conference of the American Republics, having examined the Credentials of the Delegates to the Conference, as well as the diplomatic notes relating thereto, recommend that the following appointments be approved:

"Colombia: Dr. Martín Amador.

"Costa Rica. Drs. Juan J. Ulloa, Carlos Durán, Elias Rojas, and José Maria Soto.

"Cuba: Dr. Hugo Roberts.

"United States: Drs. Walter Wyman, J. W. Amesse, R. H. von Ezdorf.

"Guatemala: Dr. Nazario Toledo.

"Honduras: Dr. Fernando. Vásquez.

"Mexico: Drs. Eduardo Licéaga and Jesús Monjarás.

"Panama: Dr. Belisario Porras.

"Venezuela: Drs. Pablo Acosta Ortiz and Luis Razetti.

"San José, Costa Rica, December 27, 1909.—Pedro Iglesias.—Belisario Porras.—Nazario Toledo."

THE PRESIDENT. Dr. Razetti has the floor to read the report of Venezuela.

DR. RAZETTI, after reading the report which appears on page 201 of the Appendix, said:

I annex to this report the plans of La Guaira and Caracas, wherein are marked all and each of the foci of bubonic plague which we have observed, in both of those cities. These plans are at the disposal of the delegates. I also annex our sanitary police regulations; the ordinances that were enacted in fighting the plague; the instructions that were given to the sanitary officers, sanitation squads, etc.

We also have a decree making compulsory the reporting of contagious diseases; the maritime sanitary police law, the decree making vaccination and revaccination compulsory; the demographic statistics of Venezuela of 1907, which are the last ones published, and several other annexes.

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As for the rest, the Delegation of Venezuela hopes that from the decisions of this learned assembly, and as a result of the wisdom of the illustrious personalities that compose it, we shall derive many useful and profitable lessons for our country.

THE PRESIDENT. The plans, maps, etc., to which the Delegate of Venezuela refers will be at the disposal of the delegates in the office of the Secretary of the Conference, as well as the other annexes related to the different reports that have been presented.

Dr. Durán has the floor for the purpose of reading the report of the Delegation of Costa Rica.

DR. DURÁN. The Delegation of Costa Rica has prepared a lengthy report and for this reason it would be impossible to read it in full within the short time allowed for the reading of these reports. On this account, there has been prepared a résumé, which I am going to read, having been designated to this end by my esteemed colleague of the Delegation of Costa Rica, to whom I am extremely grateful for this honor. (Dr. Durán read the résumé referred to. The full text of the report of Costa Rica appears in the Appendix, page 131.)

THE PRESIDENT. If any of the Delegates wish explanations or additional information in regard to the reports read by the delegates from Venezuela and Costa Rica, they may make the request to that end. (Nobody took the floor.)

I have the pleasure to inform the Conference that the Delegates have been duly invited to a polo match that will take place this afternoon in the Sabana, where all those who wish may go as soon as the session is closed, for they will be in time.

Before closing the session, I am going to make a brief remark in regard to the Faculty of Medicine of Costa Rica and to the physicians of this country. I have received complaints to the effect that they have not been invited to attend the inauguration of the Conference or its sessions. In this respect I will say that one of the first steps that I had the honor to take was that of emphasizing the importance that they should be present at the session, and to that end I addressed a note to the Faculty of Medicine inviting the physicians to be present.

As regards the inaugural session, I sent a communication to the Secretary for Foreign Affairs, requesting him to send invitations and seats to the Faculty of Medicine to be by it distributed among the physicians.

Therefore, I request the physicians to take this remark into consideration and to be so kind as to do us the honor of attending our sessions, for which purpose seats have been reserved for all of them in the room in which we are holding the Conference.

There being no other matters to be discussed, the session is closed.

(It was 3:45 P. M.)

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THIRD DAY—TUESDAY, DECEMBER 28, 1909.

Morning Session.

The Conference was called to order by Dr. Ulloa at 9:45 A. M., the following Delegates being present: Drs. Amador, Roberts, Amesse, Wyman, von Ezdorf, Licéaga, Monjarás, Toledo, Acosta, Porras, Razetti, Vásquez, Ulloa, Durán, Soto, and Rojas.

The English minutes of the inaugural session were read and approved. The English minutes for the morning and afternoon sessions of December 27th were read and approved.

THE PRESIDENT. Owing to certain difficulties in the Secretary's office, we have been obliged to delay the opening of the session, and as the Spanish minutes for December 27th are not yet ready, I beg the Delegates to excuse the reading thereof until this afternoon's session, about which time I expect that the Secretary's office will be in working order.

Referring to the invitation of the Chargé d'Affaires of Mexico, I am requested to state to the Delegates that no special cards will be issued, but that the Delegates and their families are all invited, and they are all expected to attend the reception that is given in their honor, which will take place in the Mexican Legation at nine o'clock in the evening. It is understood that they are to be accompanied by the members of their respective families.

The Delegate from Guatemala, Dr. Toledo, has the floor.

DR. TOLEDO. (See Appendix, page 161, on which appears the report read.)

THE PRESIDENT. The Delegates wishing to make any remarks on this report by Dr. Toledo may do so. I would request the delegate from Guatemala to be so kind as to tell us what sanitary measures have been adopted in Puerto Barrios.

DR. TOLEDO. Mr. President, as I have just stated in my report, I have been able to obtain but very little data. The only thing that I was able to ascertain is that the few cases reported of yellow fever were immediately isolated; that there were built provisional hospitals provided with the necessary instruments, and with screen windows and doors, and that the disinfection of rooms, etc., was duly made to prevent propagation. Because, as I have said in my report, the mosquito is the only means of transmission of yellow fever; therefore, all swamps were treated with petroleum and drained, as well as organic substances disinfected; of course, that is all that it is possible to do in new ports where sanitation has just been established and where it is not yet possible to carry out sanitary measures according to the hygienic requirements of a port. And so effectively were all possible measures carried out that the authorities succeeded in preventing the spread of yellow fever, and, according to the information that I have obtained, in the last two years not one single case of yellow fever has occurred in that littoral.

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DR. DURÁN. Dr. Toledo is indeed seriously handicapped in reporting on hygienic conditions in Guatemala; and I want to state here what happened to me with the Government of that Republic before Dr. Toledo was appointed as Delegate.

They sent me a wireless message offering me the representation of Guatemala in this Conference, and I requested them also by wireless to wait for my letter. In that letter I said, in the first place, that we regret it here very much that they should not be able to send a Guatemalan physician, well posted on the sanitary conditions of that country and provided with all necessary data to represent it; and that they should have sent their Delegate from there, that country being so near and belonging to Central America, and Costa Rica being the place selected for the holding of the Conference.

I also said in that letter: "If you do not decide to send a special physician, you must remember that there are Guatemalan physicians here, and it is only natural that a Guatemalan physician should represent his country."

Finally, I told them that, if in spite of all, they insisted that I should represent Guatemala, they must furnish me with the respective report and all the necessary data.

Guatemala, instead of doing so, has placed Dr. Toledo in the predicament of representing it without data of any kind whatsoever, and for this reason I believe that we ought to excuse him. He has done his best; he has resorted to the Consul of Guatemala; he has requested data from the Guatemalan physician residing in this city, Dr. Toledo Lopez, and, in a word, as I have said, he has done all that he possibly could do.

I believe that the Government of Guatemala has not done what it ought to have done in this case; especially when in my letter referred to I told the Minister that it was indispensable to have here all the necessary data in order to represent Guatemala.

THE PRESIDENT. When I addressed my question to the Delegate from Guatemala, it was not my intention to make any insinuations against Dr. Toledo. But it happens that in this Conference we must depend upon exact information, because we can not go into the discussion of questions related with hygiene unless we have absolutely correct data upon which we may base our conclusions.

As Dr. Toledo said in his report that the Government of Guatemala has spent the sum of $2,000,000 in the sanitation of Puerto Barrios, I want to know which were those sanitation works. Because, when I stopped at Puerto Barrios, there was no physician in that city.

Now, then, to affirm that no cases of yellow fever exist in ports where they do exist, gives rise to serious complications in the resolutions that may be adopted. I know that there have been cases of yellow fever in Guatemala during the period of time to which Dr. Toledo refers, as it is recorded in the reports on file in the International Sanitary Bureau of Washington. For this reason, before making so conclusive an assertion in any report presented in this Conference, the Delegates, I hope, will be provided with the necessary data with which to support their statements, in order to avoid any incidents like the one that has just occurred.

DR. TOLEDO. I believe that the President did not interpret my

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words correctly, or that I did not know how to express my idea properly. I said that the Government of Guatemala has recently appropriated, by reason of that epidemic, which did not take place in Puerto Barrios but fifteen or twenty leagues inland where a few cases of yellow fever were reported, $2,000,000, for the sanitation of Puerto Barrios, with which sum they have already begun to import the machinery and materials necessary for the destruction of mosquitos, which is the only means of transmission of yellow fever. In my report I promised that, before the sessions are over, I will give more precise data to be published in the transactions of this Conference.

DR. PORRAS. I request the floor only for the purpose of asking Dr. Toledo the following question: What money is represented by the $2,000,000 spent in the sanitation works of Puerto Barrios?

DR. TOLEDO. I have not quite understood the question.

THE PRESIDENT. Dr. Porras wishes to know if those $2,000,000 referred to by Dr. Toledo are in American gold or in Guatemalan currency.

DR. TOLEDO. As Dr. Porras knows very well, the rate of exchange in Guatemala is very high; and, therefore, a serious government, in saying that it appropriates $2,000,000 for sanitation works, does not refer to a money which may have more or less discrimination in the market, as is the case with Guatemalan money. I suppose, therefore, that in saying $2,000,000, they mean money that can be negotiated at par in any of the civilized nations from which such instruments and materials are to be imported.

THE PRESIDENT. Are there any other remarks to be made on this report?

DR. WYMAN. I think it would be a good idea to allow the Doctor to edit his report when it goes in with the Transactions, and make such additions and corrections as he may think proper at the time, so that we can have as full a report as possible upon the sanitary conditions in Guatemala.

THE PRESIDENT. Dr. Toledo has said that he was expecting some data and that he would include it in his report as soon as he received it.

DR. AMESSE. On arrival at Puerto Barrios a few days since, I am sure the Delegates were surprised to see that there was no Port Surgeon there, and I would like Dr. Toledo to determine whether his absence was temporary or whether the Government has abolished that office. I am sure the office of Port Surgeon is a *sine qua non* for perfect sanitation anywhere, and I should like to know whether there is a regularly detailed medical officer of the Port at Puerto Barrios.

DR. TOLEDO. I must repeat what I have said: That those are very important details regarding which I have not been able to secure any data, because I have had no source from which to obtain them; but I shall answer the question of my distinguished colleague in due time. Perhaps the Port Surgeon was at that time absent; but, anyhow, the remark is a very serious one and the charge very just. I shall request from the Government of Guatemala the principal data and I shall emphasize upon so grave an omission.

THE PRESIDENT. Such an omission is a very important one, because it has been noticed several times; we stopped at Puerto Barrios twenty

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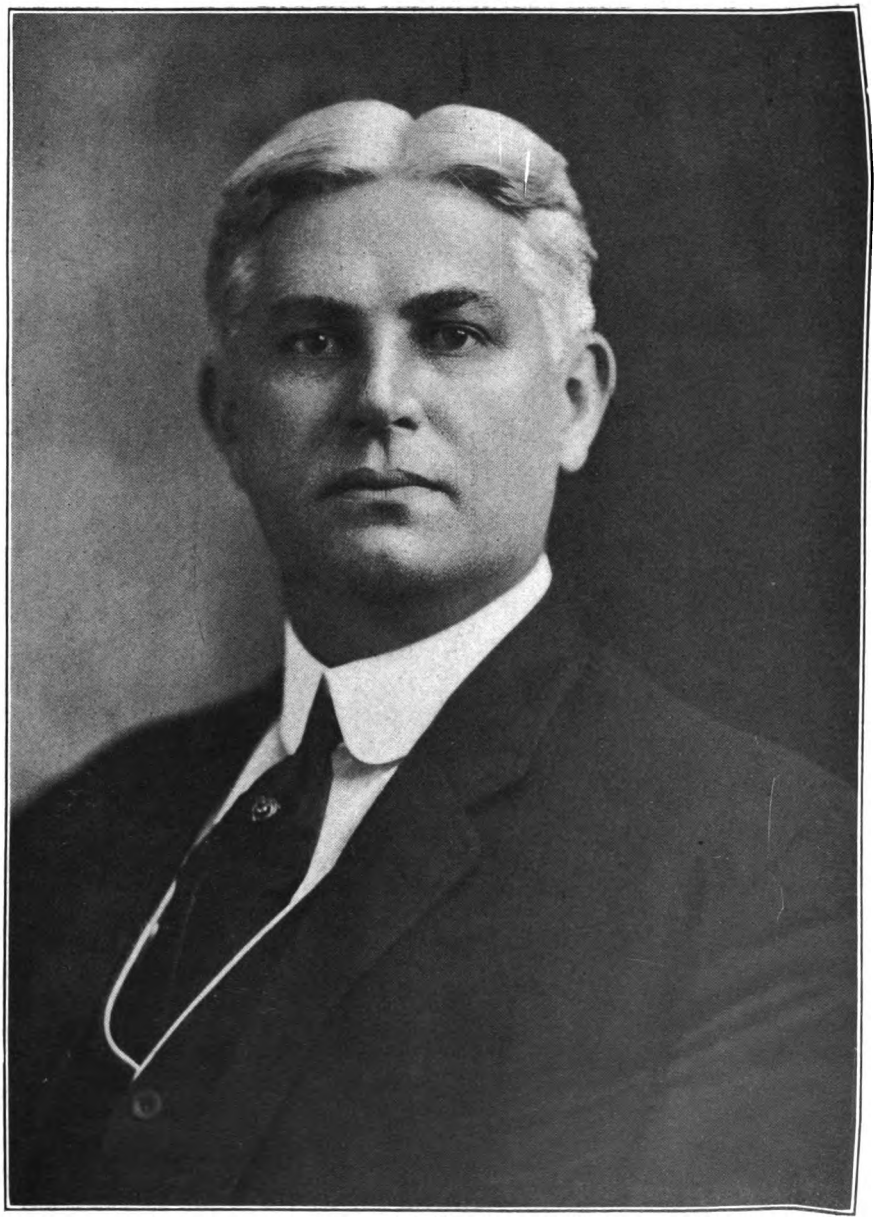

DR. JUAN J. ULLOA, CONSUL-GENERAL OF COSTA RICA IN NEW YORK;
Secretary of the International Sanitary Bureau of Washington, and President of the Fourth International Sanitary Convention, held in San José de Costa Rica, 1909-1910.

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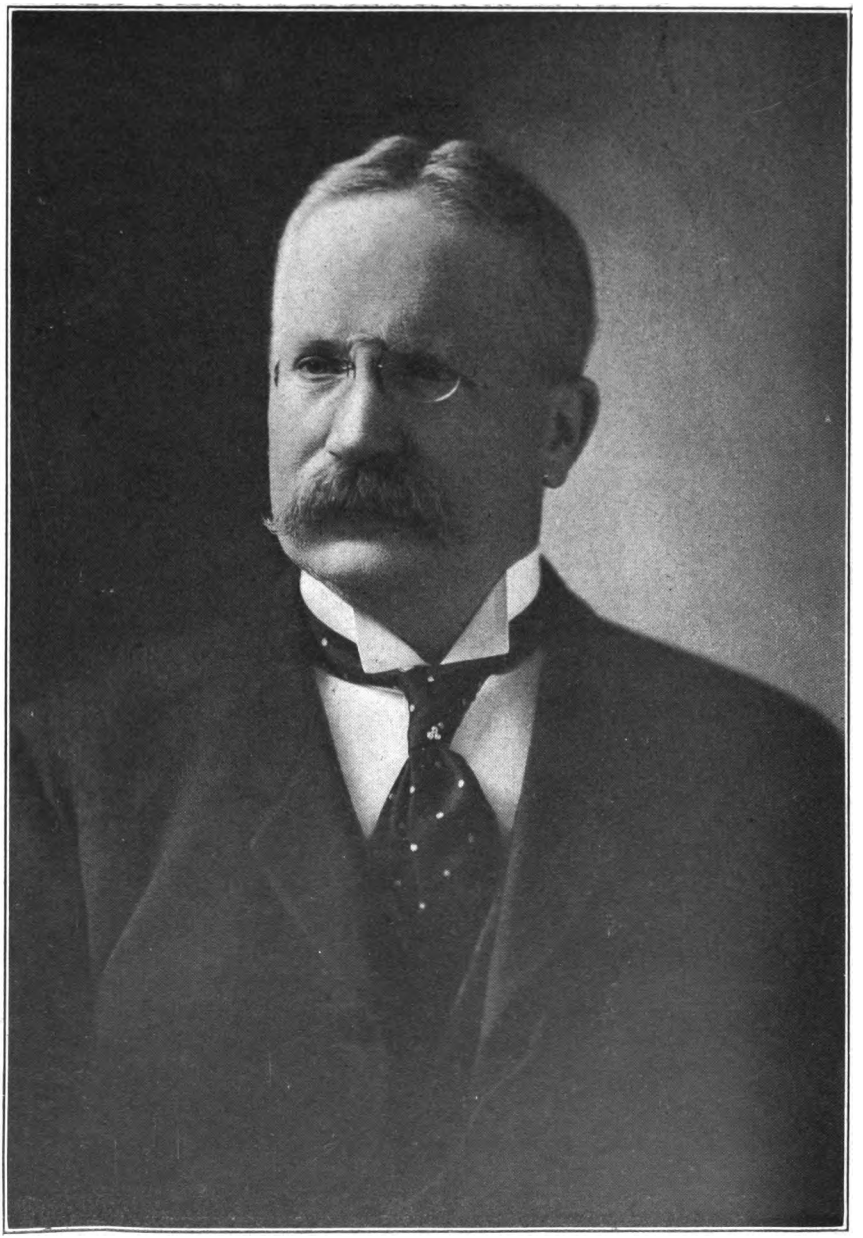

SURGEON-GENERAL WALTER WYMAN, OF THE UNITED STATES PUBLIC HEALTH AND MARINE HOSPITAL SERVICE;

President of the First and Second International Sanitary Conventions of American Republics, and Chairman of the International Sanitary Bureau of Washington, D. C.

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days before the Delegates of the United States did, and, as I said before, there was no Port Surgeon.

We have an invitation to visit the National Library. All the Delegates wishing to accompany us will please come immediately as I am going to adjourn the session until 2 P. M., when we shall enter fully into the discussion of the reports from the different delegations.

(The session was adjourned at 10:45 A. M.)

Afternoon Session.

The Conference was called to order by President Ulloa at 2:10 P. M., the following Delegates being present: Drs. Amador, Roberts, Wyman, Amesse, von Ezdorf, Licéaga, Monjarás, Toledo, Vásquez, Porras, Acosta, Razetti, Ulloa, Durán, Soto and Rojas.

The Spanish minutes of yesterday morning's session were read and approved.

DR. DURÁN. I noticed, Mr. President, that there has been recorded in the minutes every word said by those taking part in the deliberations, and I would request, if my distinguished colleagues deem it proper, that there be recorded in the minutes only a brief extract of what each one says in the discussions, although the deliberations be published in full in the transactions; but the reading of these minutes in full takes a great deal of our time and, besides, we have to listen again to the same discussions that we already know, which has no object.

I move that this slight modification be adopted.

THE PRESIDENT. My purpose in having the minutes made in that way is that of giving the delegates an opportunity to correct any point that may not be according to the statements made in the discussions. It is done in order to avoid complaints that have been made on other occasions, because the exact words of the delegates were not recorded in the minutes.

Does the Conference approve the remark made by Dr. Durán or is there any objection to its acceptance?

DR. ROBERTS. After listening to the explanations given by the President, in consideration of which he has decided that the minutes be read in full, I am in favor of such procedure, because indeed it enables us immediately to acquaint our Governments with the proceedings.

DR. MONJARÁS. I agree with the Delegate from Cuba, and I believe that the question could be solved by simply instructing the Secretary to say when reading the minutes "Dr. So-and-So said such and such a thing," and those interested in knowing what was said in full may go to the office of the Secretary and read the minutes.

THE PRESIDENT. Dr. Monjarás says that he agrees with Dr. Roberts who in turn agrees with me; but according to the words of Dr. Monjarás he rather agrees with the proposition of Dr. Durán. What Dr. Roberts wants is that minutes be read in the same manner as they have been heretofore, so that the necessary corrections may be made.

DR. WYMAN. Mr. President, with regard to the minutes today I wish to say that the English-speaking delegates all have read them,

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and I move that the reading of the minutes this afternoon be dispensed with.

DR. DURÁN. I understand that Dr. Monjarás wishes to harmonize everything, and to this end he makes a very proper suggestion: That there be recorded in the minutes the discussions in full, just as they are taken down by the stenographer, and that the Secretaries, in reading said minutes, should only give a résumé of the discussion or have a résumé ready for the session; but that the reading of what we have already heard be dispensed with, because we lose the time that we really need to discuss the important matters before this Conference.

DR. WYMAN. Mr. President, if I am in order, I would like to state that I believe I was appointed on two committees; one an Advisory Committee to which resolutions must be referred, and the other a Committee on Sanitation of Sea Ports, and I would be very glad to be provided with a list of members of those committees. I have not yet received them.

(The proposition of Dr. Durán was placed before the Conference and voted down. The minutes of yesterday morning's session were approved.)

THE PRESIDENT. We shall continue with the reading of minutes of yesterday afternoon's session.

(The Secretary read the minutes, which were approved without discussion.)

THE PRESIDENT. We shall now proceed with the discussion of the different reports read, and it is Dr. Amador's turn.

The delegates who wish to make any remarks in regard to said report may do so. I understand that Dr. Rojas wants to make a remark.

DR. ROJAS. I have no remark to make.

THE PRESIDENT. Do any of the other Delegates wish to make any remark concerning the reports read?

We shall now take up the second subject of the program, which is: "Discussion of reports regarding the compliance by different countries with the resolutions adopted at the previous Conferences." For this purpose we shall call the nations represented in alphabetical order, and, therefore, the Delegate from Colombia has the floor, and he will please report to the Conference the manner in which the resolutions of previous Conferences have been carried out in his country.

DR. AMADOR. I have no data in which to base my report on the subject; the only information that I have is that which I have given in my report, and it refers to the lazarettos in Colombia and also to the aqueduct in Cartagena, which was built two years ago, and to that of Barranquilla. For that reason I cannot comply with this point of the program as I would like to by making a statement of what has been done in my country in fulfillment of the resolutions of the Third Sanitary Convention.

THE PRESIDENT. The Delegate from Cuba has the floor.

DR. ROBERTS. As I had the honor of saying in my report read yesterday, the Republic of Cuba has tried to comply in so far as possible with the resolutions adopted in previous Conferences. One of the provisions of those Conventions is, that whenever quarantinable diseases are within the national territory, they shall be immediately reported to the governments of the different countries, specifying the

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appearance of the case and all other details relating thereto which may be of interest to the different governments.

The Cuban Republic has complied with those provisions and through the Department of State the different governments have been notified as to the details concerning the cases of yellow fever which we had at other times, and which disease we succeeded in completely eradicating long ago.

With respect to the measures adopted in the ports of Cuba, for the prevention of the introduction of quarantinable or simply contagious diseases, easily spread, I must report that Cuba has done all that is possible in order that its territory should not be invaded by said diseases from the sea, exclusively, which is the only way by which those diseases can be introduced into the country; and we have succeeded, because, as I stated before, yellow fever was completely eliminated, cholera and plague have not reached our territory, and for more than ten years not one single case of smallpox has been registered in Cuba, in spite of the many cases that have arrived at our ports, and which were treated in our quarantine stations.

Other patients suffering from scarlet fever, measles, typhus, malaria, etc., who might have been a source of propagation, upon arrival at our ports were removed to the hospitals for infectious diseases, where they were treated until completely cured, thus preventing them from becoming a menace to the community. With respect to bubonic plague fortunately no case has ever arrived at our ports, and vessels coming from places where that disease existed were not detained. But they were simply ordered to proceed when this measure was deemed wise.

With respect to yellow fever, it is practically impossible that any case should appear in our ports as it used to do in other times not long ago. The ports of Vera Cruz and Tampico, in the Mexican nation, whence these cases came most frequently, have changed completely in their sanitary conditions. Due to the energetic and wise measures adopted by the Government of Mexico, the port of Tampico was long ago freed from yellow fever; and that of Vera Cruz, although not so long ago, is also in the same sanitary conditions as the former. Notwithstanding this fact, when I left Cuba there was still a quarantine against the vessels coming from Vera Cruz, and this is due to the fact that our territory, on account of its tropical climate, is very easily invaded by yellow fever, and to the fact that there are still some cases in the State of Yucatan, which might arrive in Cuba during the period of incubation of the disease; it is also due to the fact that we have failed several times in our efforts to substitute observation in the town for quarantine detention.

In order to accomplish this end, we have made various trials which, as I have just said, have failed because non-immune passengers coming from those ports, not attaching any importance to the question that we ask in regard to the circumstances and place to which they were going to reside, would give erroneous data or answers or would remove to other places without giving notification of their removal, and still others, more intelligent than wicked, unconscious perhaps of the dangers they were going to cause, would give an entirely different address from the real one; because they had the conviction that if they were taken sick within a certain time they would be removed to our

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hospitals for infectious diseases, and in order to evade the trouble that such removal might cause them had no objection to expose the nation to great danger.

However, I am sure that if Mexico continues in the same state of affairs as it is at present it shall not be long before that quarantine is abolished.

Another provision of the previous Conference is that which recommends that there be specified in the bills of health issued to vessels the death rate caused by malaria in the respective ports. I will say, gentlemen, that in Cuba malaria does not constitute today a public calamity. The campaign that has been waged and still continues to be waged against mosquitos, not only affects yellow fever but also malaria, and this is, undoubtedly, besides the sanitary provisions against epidemic diseases, the reason why the cases of malaria should be very rare and complying with the provisions of previous Conferences, the death rate caused by such disease is specified in the bills of health issued to vessels.

Besides, in the proposed models for bills of health to be issued by the nations that have adhered to this Convention, and which I shall have the honor to submit in one of the following sessions, I have made provision for that recommendation, and in the said model is the proper place for the respective entry.

The Government of Cuba has not placed quinine salts in the free list of its tariff. There are, however, domestic regulations compelling the attendance of all cases of malaria which may occur in the Republic.

I have not here the program of previous Conferences and, therefore, I do not remember the other subjects in regard to which I should report.

(A copy of the programs referred to having been given to Dr. Roberts by order of the President, he proceeded with his report.)

DR. ROBERTS. With regard to the fifth resolution, I will say that vaccination and revaccination in Cuba are compulsory, and that they are carried out in the best possible way, both as to individuals arriving at our ports and to those residing in the Republic.

In regard to the seventh resolution, recommending the governments to carry on the most active propaganda possible concerning the etiology, prophylaxis, and treatment of malaria, and that they establish a series of public lectures on said matters in the schools, shops, barracks, etc., I beg to remind the Delegates of what I stated in my report, that is to say, that the governments publish popular pamphlets for the purpose of expanding the knowledge on prophylaxis, etc., of contagious disease which are preventible by individual precautions, but at the present moment I do not remember if any of said pamphlets refers to malaria.

With reference to the resolution recommending the different governments the non-admittance to their respective territories of immigrants afflicted with trachoma or beri-beri, I can say that the laws in force in Cuba since the creation of the Republic, and which are completely identical with those in force in the United States of America, prohibit the immigration of persons suffering from trachoma; therefore, this provision has long since been complied with. Beri-beri very seldom arrives at our ports; I only remember a case during a long period,

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which was treated in our quarantine station, and after being cured was deported in one of the vessels of the same company that brought it to Cuba, the case being that of a Chinaman who was one of the members of the crew.

In regard to the recommendation that the American Republics nationalize and centralize the control of sanitary matters by means of proper legislation, it is gratifying to me to state that there has been established in the Republic a "Department of Health and Beneficence," which is vested with such control.

With regard to the recommendation that the American Governments take measures leading to the prevention of the spread of tuberculosis, such as the avoidance, as far as possible, of the use of fixed carpets and curtains, I will say that such use is very limited in Cuba; its climate is not adapted for that sort of comfort and one sees very rarely any carpets on the floors of houses. As to the use of profusely distributed cuspidors, I will say that the law in Cuba requires that not only shall there be sufficient cuspidors in all establishments, but also that they should be kept cleanly at all times; expectorating on the floor is also prohibited.

Recommendation is also made for the periodical disinfection of railroad cars, steamer cabins, and dining room utensils before being washed. As the Delegates must have seen in the numbers of the Bulletin of Health and Beneficence, which I have had the honor of annexing to my report, that disinfection on account of tuberculosis is done in Cuba frequently, although I believe that there is no special provision compelling the disinfection of napkins before being washed, as is recommended by that resolution, nor directing that napkins for the use of passengers be always kept in paper bags or envelopes, although the recommendations to the effect that the food be kept under wire gauze covers have been adopted, even in some cases instead of wire gauze they are kept under crystal covers.

With reference to the recommendation of the advisability of European nations adopting the sanitary convention of Washington of 1905, with respect to such colonies as they have in America, I understand that Dr. Arístides Agramonte, representative of Cuba in a European Congress, made that proposition which I believe was not welcomed with enthusiasm.

The resolution recommending to American Nations that the bills of health they issue shall contain the same kind of information has moved me to prepare a proposed model of bills of health to be adopted by all nations, and which I shall have the honor of presenting in due time.

Recommendation is also made as to the advisability of establishing separate hospitals for the treatment of consumptives. In Cuba there has already been established a hospital of that kind and I do not doubt that more will soon be organized.

In the sanatoriums of the regional societies established in Cuba attendance is also given that kind of patients, they being isolated from the rest and in the best possible conditions.

With reference to the resolution that this convention shall discuss and agree as to the provisions to which the vessels, cargoes, and passengers shall be subjected at the contaminated port of departure in order to afford the greatest possible protection to passengers and avoid

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the occurrence of cases on board, I shall have the honor of submitting a proposition to the consideration of my distinguished colleagues.

This is all that I have to report.

DR. WYMAN. Mr. President and Gentlemen: A good deal of what is required by the order of the day is included in the preliminary report which the American Delegation presented on the first day, but I will review briefly what has been done in connection with the various resolutions which have been passed since the last convention, though my review may not be in the exact order of the subjects as printed.

It would, however, take too long to go into detail with regard to all the States of our Union, for there are forty-six States and very many seaports, so I shall try to give you the main points which have been covered in the several States and municipalities.

In the first place, one of the principal requirements by the previous sanitary conventions has been the reporting of cases. That has been done by our Government regularly every week in a publication which we transmit not only to our own health officers and the quarantine officers on the coast but to all our United States consuls in foreign ports, and also through the Ministers of the several Republics in Washington to their respective countries. All information that we have concerning infectious or contagious diseases, all important sanitary information, is printed in that weekly publication. It is known as "Public Health Reports," comes out every Friday and is mailed to all parts of the world. That publication is divided into two parts, the first part relating to sanitary conditions and reports of infectious diseases in the United States, and the second part containing the same information from foreign countries and the insular possessions of the United States.

Now, if it so happens that any of the delegates here do not receive regularly that report, it would give me great pleasure to see that their names are put upon the mailing list so that they may receive them not only through their respective State Departments or official organizations, but also direct from the Bureau at Washington.

Thus we feel that we have complied, and are complying constantly in a satisfactory manner with the requirements of the Convention concerning the reporting of diseases.

In regard to quarantine, within the last year or two the quarantine measures adopted by the United States have undergone very few changes. The labor that has been put upon these regulations in the past is telling in our favor, and we believe that quarantine has been going on with as little restraint, as little difficulty, and as little friction, both with regard to the commercial interests, our own commercial interests and foreign commercial interests, as is compatible with existing conditions. The tendency of the Government of the United States in the matter of quarantine, as administered by the Public Health and Marine-Hospital Service, is to recognize changed commercial conditions and advances in knowledge regarding quarantinable diseases. It is necessary to be extremely careful not to become negligent or to relax in vigilance, but there are certain truths which are coming out constantly that enable us to act with greater intelligence as time goes on.

I will mention for instance the matter of bubonic plague. We regard now an individual who comes to a quarantine station at one of

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our domestic ports with bubonic plague as less a menace than a rat on the vessel which brings him if that rat is infected with bubonic plague. There is more danger of the conveyance of this dread disease from one country to another through the rats on the vessels than through individuals, but that does not make us less careful with regard to the individuals; it makes us more careful with regard to rats.

At the proper time I shall have some further remarks to make upon the necessity for extreme caution in preventing the spread of bubonic plague from one port to another through the medium of rats on vessels.

With regard to yellow fever, what has interested us the last two years, particularly the past season, has been the singularly small amount of the disease. The Western Hemisphere has not been entirely free, but the presence of the disease throughout all our littoral has been markedly less than in any other year in a great number of years, and I do not hesitate to say here, that I believe it is not simply accident, that it is not simply an off year in yellow fever, as we used to say, but that it is attributable to preventive measures which have been taken. It is true that sanitary measures in a great many of the ports of the American Republics—the ports of the United States included—with regard to yellow fever are defective, but it is astonishing how really beneficial sanitary measures directed against an epidemic disease are. Even if they are incomplete they do a great deal of good. Of course, we should make them as perfect as possible, but the great thing is to have our minds on these subjects and be alive to them at all times, and especially at times and places when and where the disease is most apt to make its assault.

But, as I have said before in these conventions, I think we have made quarantine about as good as it can be made. I do not mean to say too much—lay too much stress on that, but I will say we have got the principles of quarantine on a scientific basis and their application is becoming every year more rational and more reasonable.

With regard to the sanitation of the ports of the United States I have a list (see Appendix, page 187) of the different cities and the work which has been going on. I will not attempt to read the prepared record, but I assume that I shall have the privilege of putting it in the Transactions. I will turn it over to the Secretary and anybody can read it, but I will say in a general way that the work of sanitation of our cities is constantly going on. There is a great awakening in the United States with regard to domestic sanitation and sanitation of cities, and most of the ports where the sewerage and the water supply have been defective are rapidly supplying themselves with good sewerage systems and good water supplies. New Orleans, for instance, has about completed its new sewerage system.

With regard to the destruction of mosquitoes, a very important matter, this has been carried on in different parts of the United States, effectively in some parts, and without very much energy in others. It is a matter which the National Government cannot compel the State and local governments to act upon. But the National Government exercises its influence as follows: As you know, every State of the 46 States in the Union has a State Board of Health or State Department of Health. Under National law the Surgeon-General of the

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Public Health and Marine-Hospital Service is required to call a conference annually of all the State Boards of Health, so we meet in Washington once every year and discuss these measures, and it is then that the Surgeon-General can bring these matters to the attention of the different heads of the several State Health Departments and exercise an influence in bringing about these local sanitary reforms. The State Boards of Health in the United States are fast becoming most admirable and effective organizations. It is the policy of the National Government to encourage them and to throw the work of domestic sanitation upon these State Boards of Health while they themselves may throw it upon their different municipalities. This is the manner in which there has been an evolution of the health organization of the United States. The State Governments have more direct influence, in many respects, with the people, with the municipalities, than the National Government could have, though in some other respects the National Government has more influence. In times of great epidemics or when there is danger of their introduction or an appeal is made to the National Government to assist, or if the States do not take the proper measures themselves, the United States has a right anywhere to exercise its functions in the suppression of the disease. But sanitary regulations that are in the nature of police regulations are, in the construction of our Constitution, left to the States. Otherwise the State Governments and Municipal Governments would weakly lean upon the National Government, and that it is not what is desired.

Now, in some States, as New Jersey, New York, and others that I might mention, the warfare against mosquitoes has been very vigorous and very successful, and malaria has been diminished, but in other places where they should pay attention to it, they have not done all they should do, there is no doubt about that, but we are making progress.

I am making, therefore, what may be termed a report of progress with regard to these matters, and by the time the next Convention is held I believe I will be able to report a great deal more efficiency with regard to this important measure.

One matter that I think might prove of interest to the delegates is the matter of vaccination and smallpox. Smallpox does not trouble us as it used to, and I believe this is largely due to the effectiveness of modern vaccine virus and this efficiency is due to a National law which requires that all establishments that prepare vaccine must receive a license from the Secretary of the Treasury before they are allowed to sell their product in interstate commerce; and before they can receive that license their establishments must be inspected by the Public Health and Marine-Hospital Service and anything wrong connected with the establishment itself, with the plant, or with the method of procedure, must be corrected before the license is granted.

As a consequence, the vaccine virus in the United States is of a very superior grade, and whereas only a few years ago sore arms due to local infection were often the result of vaccination, they are now quite a rarity—a sore arm is quite rare. So we feel we have made great progress in the matter of the suppression of smallpox. The cases of

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smallpox reported this year were considerably less in number than in the previous year.

With regard to trachoma, we have always had that upon our list of diseases which must be excluded, and we examine very carefully for trachoma all arriving immigrants. We examine immigrants at a number of foreign ports, but we rely upon the inspections at the domestic port for keeping out trachoma.

With regard to the free distribution of quinine, I would say that is a measure that cannot be enforced by the National administration. The States might do it, but I do not believe that is necessary in the United States; at any rate I do not recall that this has been done by any State. But with regard to the free importation of certain material intended to prevent the spread of disease by mosquitoes, such as mosquito netting, I am pleased to say that in the last tariff act mosquito netting was either put on the free list or it was very materially reduced so as to cheapen the material and keep it within a reasonable cost.

I do not feel that it is necessary to go into further details. I believe I have covered in a general way the requirements of the afternoon. I could talk a long while upon tuberculosis, but that subject will be more appropriately considered at another time. So with these remarks I will close this part of my report.

THE PRESIDENT. As I have to absent myself for a few moments, I beg Dr. Roberts to take the Chair.

THE PRESIDENT PRO TEM., DR. ROBERTS. Do any of the Delegates wish to ask any data in regard to the report that Dr. Wyman has just read? If not, following the order established, the Delegate from the Mexican United States, Dr. Licéaga, has the floor.

DR. LICÉAGA. Gentlemen, the Mexican Delegation has followed closely this point of the program. I believe that this was the subject of my first report, when I spoke of the immigration law, which comprises many of the matters concerning the sanitation of ports, diseases the introduction of which is not permitted, etc., and following strictly the order of the resolutions of previous Conferences, one by one, until all of them has been dealt with. Therefore, what is required in this subject of the program has already been covered. There are many other points which have already been discussed, and also other ones in regard to which the Mexican commission has written and printed reports, but this is not the opportune time in which they should be presented. Therefore, the delegation will submit them in detail under subjects 2, 3, 4, 5, etc., of the program, because, as I have said, they are all in writing and printed.

THE PRESIDENT PRO TEM., DR. ROBERTS. Do any of the Delegates wish to make any remarks in regard to what the Delegate from the Mexican United States has said? If not, proceeding with the reports, the Delegate from the United States of Venezuela has the floor.

DR. ACOSTA. Mr. President, this is really the first time that Venezuela takes an active part in these Conferences, although in 1905 Venezuela signed the Sanitary Convention of Washington. For that purpose she sent as her delegate her diplomatic agent in the United States; therefore, it can be said that this is the first time that a Venezuelan Delegation takes part in these Conferences.

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What Dr. Licéaga has just said in regard to his report, I must also say, referring to the lengthy report that Dr. Razetti presented yesterday, as it contains one by one, and with careful details, all the points that might be discussed at this moment.

However, as this is the first time that Venezuela takes part in these Conferences and as it was not really obliged to fulfill all the provisions of the Washington Convention, it is necessary to dwell upon certain interesting points. The organization of public hygiene in Venezuela is comparatively recent, because only in April last was the commission of public hygiene organized in the manner set forth in our report, it being composed of six physicians, one engineer, and one lawyer. The committee of public hygiene made it its first duty to fight the plague by all possible means; after it has devoted its time to the carrying out of measures of another character; disinfection apparatus has been ordered; it has submitted a project of general law on the protection of public health, copied from the French law of 1902; but naturally those are projects which have to be carried out in the future, because one of the greatest difficulties that we encounter in countries as poor as ours, is that there are no Rockefellers there, and therefore, we have to provide ourselves first with the necessary means. One of the greatest obstacles that the commission of public hygiene in Venezuela has encountered in carrying out its plans, has been the lack of the necessary means and the indispensable money for such projects which are very expensive, most costly indeed, such as the sanitation of ports, construction of buildings, etc., which require millions of dollars. Therefore the commission of public hygiene in Venezuela has tried to fight the plague and it has devoted its time mainly to public health in all respects.

It is very important that I should state at this point that our presence in this Conference, the fact that Venezuela should have sent two prominent officials of the Commission of Public Hygiene—the Secretary, Dr. Razetti, and the President of the said Commission, myself—proves that Venezuela has the best wishes to participate in the activities of progress by these Sanitary Conferences. But as the year before last when the first epidemic of plague broke out, the Government of Venezuela, owing to reasons which it is not necessary to state, did not adopt the proper measures nor did it act in accordance with the convention of Washington, a fact which has cost the country serious damages, and of this we have a practical example of recent date, because the delegation of Venezuela which came in an immune ship from a port that for more than one year and a half has been completely healthy, was subjected to quarantine in Colon. In this way the Convention of Washington was violated and I want to so state here in public.

The circumstances leading to the fact that the plague epidemic in Venezuela at that time was not reported, were of a political nature, the knowledge of which would not be of interest to the Conference. What is interesting to know is that the present Government of Venezuela has determined, as our presence here proves, to adhere to all the provisions of the Convention of Washington and to be in the greatest harmony possible with all the other nations.

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Therefore, I beg the Delegates who wish further data, to consult the lengthy annexes that we have accompanied to the reports.

THE PRESIDENT PRO TEM., DR. ROBERTS. The Delegates wishing to ask any questions of the representative from Venezuela, in regard to his remarks, may do so.

There being nobody who wishes to take the floor, I am going to ask a question of the Delegate from Venezuela.

As I understand, when the bubonic plague broke out in Venezuela, the Government did not report it on account of political reasons.

DR. ACOSTA. That was another government and it happened two years ago.

THE PRESIDENT PRO TEM., DR. ROBERTS. The government at that time did not report the plague through political reasons. I would like to know if such a thing could happen again at this time.

DR. ACOSTA. At present the Commission of Public Hygiene has the duty to issue a daily statement so that the Official Gazette may publish every day the statistics of all the deaths and cases of transmissible diseases; and every physician is obliged to report any cases coming under their observation, and by this means the Government of Caracas knows, on the same day, the cause of death of persons within the Federal District, as well as the infectious disease reported by the physician.

As we committed the mistake to which I have referred and which we acknowledge, it so happens that more credit is given to the newspaper men than to the agents of governments. In last November the following took place in Caracas: The delegates are well aware that there are certain forms of plague the diagnosis of which is extremely difficult, so much so that an infectious pneumonia is sometimes mistaken for a case of plague of the pneumonic form; a differential diagnosis not being visible without the use of the microscope. Well, then, it happened that one of these cases was mistaken for plague, and, as there exists now in Venezuela a complicated organization as regards the public health service, the physician reported the case as a suspicious one, and an agent of the New York health service reported it as a case of plague, and that paper immediately gave out the news that there was bubonic plague in Venezuela. It thus seems that the newspapers are given more credit than the governments.

(At this point the President took his seat again.)

DR. WYMAN. Mr. President: As the last speaker was discussing the subject I have been informed of what he was saying. Although I do not understand the Spanish language, my colleague, Dr. Amesse, has told me the purport of it, and I wish to say here that while Venezuela formerly was the source of the gravest concern to the United States, and if it had not been at one time for the almost complete cessation of commerce between the ports of Venezuela and the United States, I do not know what recommendation it might have been necessary for the sanitary authorities of the United States to make. At one time when the bubonic plague was first announced in Venezuela we endeavored to have an officer in the port of La Guaira to look after the safety of vessels, cargoes and persons bound for the United States in accordance with our law, but we were unable for a long while to get anyone there. There was objection, and in the mean-

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time commerce became so small that the matter was allowed to rest for the time being. But when this new régime came in I want to say that they expressed the greatest willingness to have a representative of our government in their principal seaport. They invited us to send a man there, and I take this occasion to express my appreciation of that action.

As you know, we have in the port of La Guaira now a sanitary expert named Dr. Kellogg, who is there to look after the safety of ships bound for the United States, just as we have them in all other ports in accordance with our law where they have an infectious disease, and the courtesy that has been extended to that officer I want to express my appreciation for now.

But, whatever may have been the difficulties in Venezuela in the past, I feel that with the presence of these two Delegates here to-day we can feel sure that those difficulties are over and there will now be an intelligent and effective régime. I think that this is the feeling which we have in our Sanitary Bureau at Washington at the present time. We feel that they will not spare any expense in preventing the escape of bubonic plague or any other contagious disease to our ports.

(Dr. Vásquez repeated the remarks of Surgeon-General Wyman in the Spanish language.)

DR. RAZETTI. I believe it is necessary to give a few details as to what happened at the beginning with the plague in Venezuela. General Castro, who by politics ruled the country despotically, did not see fit to notify the friendly nations, and much less those that had subscribed the Convention of Washington, that there was plague in La Guaira; although he did take the necessary precaution, in such a way, that by an executive decree La Guaira was closed and communicated from the capital, and it can be said that even more precautions than those prescribed by the Convention of Washington were taken, although without declaring that there was an epidemic of plague, in spite of the fact that everybody knew that it did exist.

As to the remarks of Dr. Wyman, I have the honor, in the name of the Delegation of Venezuela, to thank him most sincerely for the favorable statements that he has made concerning our present Government.

THE PRESIDENT. After the explanations made by the Delegation of the United States of Venezuela, and of the remarks by the Surgeon-General of the Public Health and Marine Hospital Service of the United States, Dr. Wyman, which statements are an evidence of the great change in the sanitary conditions of the United States of Venezuela, I have the honor to move that we send our congratulations to the new Venezuelan Government for the measures that it is carrying out on behalf of public health.

(A vote was taken on the above motion, which was unanimously approved.)

THE PRESIDENT. The Delegate from Guatemala has the floor.

DR. TOLEDO. Mr. President, I am going to repeat what I said this morning in my report, to wit: That I have absolutely no data as to the measures taken by the Government of Guatemala two years hence. Therefore, I request that I be relieved from the duty of making a report on this subject.

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(The Secretary, Dr. Razetti, read a note from the Department of Foreign Affairs stating that seats had been sent, to be distributed among the physicians of Costa Rica for the Inaugural session.)

DR. SOTO, PRESIDENT OF THE MEDICAL FACULTY OF COSTA RICA. With regard to the subject referred to in the note from the Secretary for Foreign Affairs, I have the honor to state that in due time I received the seats and that I immediately had them distributed among the most prominent physicians of this city and it was so done.

At the same time I must say that only eighteen seats were sent and not twenty, as the note says.

THE PRESIDENT. Proceeding with the Program, the Delegate from Honduras has the floor.

DR. VÁSQUEZ. Mr. President, in the report that I had the honor to present I said something as to what the Government of Honduras has done in compliance with the resolutions of the previous Conferences. Although the Government of Honduras has every desire to comply with the provisions of any of these Conferences, it is handicapped by the insurmountable difficulty of the lack of means. Our poor Honduras is one of the poorest countries of America, and it is very difficult for her to put into practice what for other nations is feasible, as is the case with Panama, which has the efficient help of the American Government, Cuba, and the United States, which are really wealthy countries.

However, the Government of General Davila does its best to fulfill the mandates of these Conferences.

At present there are being carried out all the sanitary laws and regulations enacted since the Third Conference.

The Convention recommends vaccination, and this recommendation has many years since been a law in the Republic. Vaccination and revaccination are compulsory. The benefits of these measures were evidenced when last year the country was invaded by an epidemic of smallpox, which made no ravages; the death rate was very small as a result of vaccination. The same lack of resources prevented the Government from placing on the free list quinine salts, wire screens, crude petroleum, etc., but the Government has always distributed quinine among needy persons in the ports of the Atlantic where malaria is more prevalent. The most active propaganda is being carried on by the Government for spreading among the people the knowledge of prophylaxis, and it has made it known to the ignorant masses that malaria is transmitted by the bite of the *anopheles* mosquito, and the people are already beginning to know how to distinguish this kind of mosquito from the others. In the ports of Amapala and Puerto Cortes wire screens are placed in the windows and doors to avoid mosquitoes.

The railroad of the Republic, in the short section between Puerto Cortes and Pimienta, uses no carpets nor curtains; cuspidors are profusely distributed in all the cars and it is prohibited to expectorate on the floors. In the principal cities of the Republic, in public places, offices, cantines, hotels, and all places to which the public has access are posters stating that for the prevention of the spread of tuberculosis it is prohibited to expectorate on the floor. This is what the Government of Honduras has done in compliance with the provisions

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of the last Convention of Washington. As to the other Conferences the Government has paid little attention. It has only carried out the provisions of the Third Sanitary Convention of Mexico, held two years ago.

THE PRESIDENT. The Delegate from Panama, Dr. Porras, has the floor.

DR. PORRAS. Mr. President, the report that I had the honor of reading yesterday, under Chapter 2nd, set forth the manner in which the resolutions adopted in previous Conferences have been carried out in my country. However, I am going to report to the Honorable Conference the general and special measures adopted in fulfillment of the resolutions passed by the Third International Sanitary Conference, held in Mexico in December, 1907.

The most important of these measures has consisted in intrusting to an American Board of Health everything relating to public health and hygiene. The Republic of Panama, founded only six years ago, without traditions, schools, roads, etc., found it necessary to intrust the health of the country to the expert American physicians. It also did so for the purpose of avoiding the considerations that in small countries people owe to each other.

This Board has complied with all the resolutions adopted in previous Conferences, carrying out all their provisions.

When the American Board of Health considered that the Republic of Panama was already of age and that it was capable of looking after public hygiene, it intrusted to the Panaman Government part of that control, that relating to the cleaning of cities, and for the last two years the Republic of Panama has looked after that part of hygiene.

However, the codification of all the sanitary laws and measures is not complete. Vaccination against smallpox is absolutely compulsory. Quinine salts, wire netting, mosquito nets, have been put in the free list. There is also a more active propaganda for spreading the knowledge of etiology, prophylaxis, and treatment of malaria, by means of public lectures held in the Ancon Hospital, which were attended by a great number of persons; and instructive circulars have been distributed, regarding the most constant of diseases in Panama and the Canal Zone—malaria.

The death rate caused by malaria is specified in the bills of health that are issued in our ports. This disease has almost disappeared from the ports of Panama and Colon, because among the measures adopted against it are the building of sewers, the drainage of swamps and of all the wells in those cities; formerly, in Panama, the only source of water supply were the wells, existing since the colonial times, whereas now those cities are provided with excellent aqueducts.

Immigrants suffering of trachoma, beri-beri, leprosy, etc., are not admitted in our territory. The use of carpets and curtains is also avoided; railroad cars, and steamer cabins, especially those on ships going to and from the United States, are disinfected periodically. In those cars and cabins are conspicuously posted labels prohibiting expectoration.

This is, gentlemen, more or less the detail of the manner in which

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the resolutions of the Third Sanitary Convention of Mexico have been carried out in my country.

THE PRESIDENT. I would request Dr. Porras to tell us if those measures to which he alludes are carried out throughout the Republic, because I have noticed that in his report he refers to the Canal Zone, which is under the supervision of the American Board of Health; for that reason I would like to know if the said measures have been carried out in what is the Republic of Panama proper.

DR. PORRAS. In my country there is a general board of health, and that board has physicians in the provinces of the Republic who fulfill religiously all the orders of the central board of public health.

I should also add in this respect, that in my country, the interior towns, which were built by the Spaniards on the other side of the Cordillera towards the Pacific slope, evidently for the purpose of safeguarding them against the attacks of buccaneers and pirates, have a most excellent climate and are comparatively healthier than those on the Atlantic Zone.

THE PRESIDENT. Is the Central Board composed of Panaman physicians?

DR. PORRAS. Yes, Mr. President, there are on that Board Panaman physicians, but at the head of it is the illustrious physician, Dr. W. G. Gorges. The Boards of Health have Panaman physicians.

DR. ROJAS. Mr. President, Messrs. Delegates: In compliance with the subject of the program in regard to the fulfillment given by the different countries to the resolutions adopted in previous conferences, the delegation of Costa Rica has prepared a small report, which I am going to have the honor to read. (See Appendix, page 133.)

THE PRESIDENT. Following the order of the program we shall now proceed with the discussion of the reports regarding the sanitary conditions of ports and measures that may be submitted for the betterment of such conditions. I request the Delegates having papers on this subject to present them.

DR. WYMAN. Mr. President, I suppose it is in order to comment, as I propose to comment, on one matter, and that is that at some time during our proceedings we should bring up the matter of a port's self-protection. It is very necessary that every port should have a quarantine station. I do not believe that that fact is sufficiently understood. The quarantine station is a necessity for a port, not only for the safety of that port as against other ports that may be infected, but also for its commerce. When a vessel comes to a port with infectious disease aboard there should be provision made for taking care of that infection, for taking the passenger off and isolating him on shore and also detaining under observation for a period equal to the incubation period of the disease all those who have been exposed; then the vessel should be disinfected, and when that is done the vessel may go to the port with safety. Therefore a well-equipped quarantine station is a necessity for the facilitating of the commerce of the port. In the old Venetian days these vessels used to lie out for forty days and nothing was done. What kind of commerce was that? In modern times the vessel need not be held. A new crew is provided and the vessel is allowed to go to the dock and discharge its cargo and receive cargo for another port. Modern commerce demands

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that. I believe that there are some ports in our Western Hemisphere that are not properly equipped and they ought to be. It is a matter for the benefit of the port commercially, and it is a matter of humanity. I have known of cases where vessels have sought to enter a port, with infectious disease aboard, and because that port had no means of taking care of the patients sick with contagious diseases they have been waved off to some other port and waved off from that port to some other port still further along, and all this time the patients on board were not properly treated and the other people were held on board exposed to the infection and liable to get it. So that if there is any port in this Western Hemisphere not provided with a quarantine station, some means to take care of a sick vessel as well as sick individual, we ought to lay stress on that subject and it might be the subject of a resolution.

The remarks of Surgeon-General Wyman were translated and repeated to the Conference in Spanish.

THE PRESIDENT. The subject under discussion is one of the most important before the Conference. I am entirely in accord with the remarks of Dr. Wyman. It seems to me that it is a crime against civilization and humanity to deny entrance to a vessel coming from an infected port, or having cases on board, simply because the country where such a thing happens either has refused to comply with the principles of maritime hygiene, or has not properly developed the humanitarian feeling that it should have.

Given present conditions of civilization and the progresses of hygiene, I believe that such a thing should no longer happen in our continent, and that we should exert our best efforts to overcome this difficulty. I believe that we should persist in persuading our respective governments to adopt the establishment of quarantine stations properly equipped so that they may be able to do the service required of them by public hygiene. Without such quarantine stations, not only are human beings—those who have no means to cure themselves of diseases which might be cured if there were lazarettos—mistreated, but also the country is subjected to evil conditions which are detrimental to commercial interests.

Therefore, I request all the Delegates to bear this point well in mind and to express their opinions so that before we adjourn this session we may come to an agreement and propose a resolution along the lines suggested by Dr. Wyman, to resolve this subject and to exercise all possible influence in order that our governments shall comply with that resolution and that it may be not only written but also realized.

DR. LICÉAGA. The idea expressed by Dr. Wyman and corroborated by the President of the Conference is an undisputed fact. It is absolutely necessary that there should be established in all the ports sanitary and quarantine stations, but on many occasions it has not been possible to carry out in all ports the resolutions adopted by previous Conferences, because the financial conditions are not the same in all countries. For this reason, experience has solved the problem in this manner. There are ports which are especially assigned to admission of vessels carrying suspicious or confirmed cases of transmissible diseases. If each nation would establish such ports, the question would be simplified; of course, the ideal thing would be that all the ports

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should have the necessary conditions; but as it is not the spirit of the conventions to accomplish that ideal at once, because such a thing would not be within the possibilities of the majority of the nations, but to achieve it in so far as possible, I hope the Convention will deem it wise to provide that the resolutions be couched in these terms: "It is to be desired that all the ports of each and every nation on the American Continent should have a sanitary station and quarantine station; and that wherever the establishment of such stations be not practicable, and pending the establishment of such stations, a port be assigned on the coast of each country which may be immediately fitted with all the sanitary requirements." Oftentimes, when one thinks of great undertakings, what should be done is left undone, because, as the Spanish proverb says, "The best thing is the enemy of the good thing." When we say sanitary station, or lazaretto, we think immediately of a large establishment with capacity for thousands of passengers, like the one in the port of New York, and then figure that the difficulties are absolutely insurmountable. How could the small nations build a quarantine station like that of New York? It would be impossible.

No; let us put the question on a feasible basis, and such a basis depends on the manner of looking at the question. If, as I said before, we try to make a work like that they have been carrying out for consecutive years in New York, we would not be able to do it; but if we confine ourselves to the simplest that should be had, then our ports could be provided with a sanitary station.

The idea is this. I am going to express it because we have carried it out in Mexico on the occasion of the campaign against yellow fever. At most, one or two cases may occur on board of any vessel, because we cannot expect that infection should take place in the manner of the middle ages, when it used to happen that all the men in a ship would fall sick. Nowadays such a thing does not happen; those one or two cases may be isolated in a lazaretto equipped in the simplest way, that is to say, an ordinary house, a wooden barrack, or a private dwelling with about three rooms could be converted into a sanitary station, it being enough for that purpose to paint one of the rooms, pave it, disinfect it, and put it in a fit sanitary condition for the isolation of the patient. If there be a case of yellow fever, sulphur is burned to drive away mosquitoes, the windows and doors are screened with wire gauze, etc. Not even the smallest town would be lacking in the necessary materials for screening doors and windows. Another room may be fitted for the watchman or nurse, another for the kitchen. Such a lazaretto could be improvised anywhere. A sanitary station properly equipped would be more difficult.

I have made this interlude for the purpose of showing that when there is good will to follow the basis of a principle, and not its details, one can succeed in gradually carrying it out. A sanitary station fitted only with the most essential requirements can be had anywhere. Sanitary stations equipped as they should definitely be can only be acquired by the lapse of time and by means of large resources.

I also want to point out that perhaps it would be convenient to assign in each nation a port, or ports, in which infected ships could come in; then there would be no difficulty. Therefore, I move that

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the proposition of Dr. Wyman, seconded by the President, be accepted, but expressed in these terms: "That while all the ports of the American nations are not provided with permanent sanitary stations, the principal ports, or those having the largest traffic in each nation, be fitted with sanitary stations, and that in case of necessity such sanitary stations be improvised in any port."

DR. SOTO. For the purpose of carrying out so good an idea as that of establishing quarantine stations in the majority of ports I would like to propose the following idea: There being a committee charged with the study of this project, I move that the President refer this matter to the Committee on the Sanitation of Ports so that it may prepare a project to be by it submitted and discussed in detail by the Conference as soon as possible. I believe that this is the most practicable way of carrying out that idea.

DR. ROBERTS. I take the floor to second the statements made by Dr. Licéaga. Undoubtedly the best thing would be that all the ports of a nation should be fitted to receive passengers suffering from transmissible diseases, but there are many ports in all the nations of the world, beginning with the United States, whose traffic is so small that it does not warrant the establishment of sanitary stations fully equipped, in which case, as Dr. Licéaga says, small hospitals might be fitted in those ports for the treatment of infectious cases; these small hospitals would answer the purpose. I also want to state that in many cases, and especially as regards yellow fever, even the regulation elements furnished by the ship are sufficient for the isolation of the patient preventing the spread of the disease and without detriment to the operation of the vessel. In the ports of Cuba I have very often received vessels with cases of yellow fever on board, and without any elements other than those provided by the ships, the patients have been completely isolated and public health safeguarded. A little sulphur, a kettle, and a piece of wire gauze or mosquito net, or simply a sheet, are sufficient for disinfection of a cabin; the complete isolation of a patient and the disinfection of the rest of the vessel, and thus the patient may remain on board without any danger of spreading the disease. This means that when one wants to do things, as Dr. Licéaga says, measures are improvised, and it is not very expensive to treat a patient and to safeguard public health.

DR. LICÉAGA. What Dr. Roberts has just said reminds me of what we used to do. Our campaign against yellow fever was successful because we improvised lazarettos anywhere we chose. Among the means that we had for this purpose was the building of tents, which could be put up immediately; they were four meters square and three and a half meters high. They were made of canvas and provided with doors and windows of wire gauze. These tents were easily transported.

THE PRESIDENT. I beg to point out that we were discussing the proposition of Dr. Wyman, on the detailed discussion of which we shall enter later on; the question to be decided now is whether or not we shall accept Dr. Soto's proposition, to refer the project to a committee, which shall report thereon.

I believe that the idea of Dr. Wyman does not call for first-class quarantine stations in all ports; such a thing should be in accord with

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the necessity of each place and with the resources of the respective countries.

As regards the point raised by Dr. Licéaga, as to the advisability of each country selecting a port for receiving vessels from infected ports, and fitting it for the treatment of infectious diseases, I beg to point out that, as a general rule, in America the Republics are small and have but one port on the Atlantic and another on the Pacific, so that we would only have to equip those ports, they being the only ones of entry.

Wherever there is commerce and movement of passengers the governments should have quarantine stations, equipped within the measure of their resources, where passengers arriving with infectious diseases may be treated. That is the point referred to by Dr. Wyman.

Far be it from our minds to contemplate the building here of a quarantine station like that of New York or Vera Cruz; but it is our duty, as it is also the duty of the other Republics here represented, to build such stations as their resources will permit.

I make this remark merely for the purpose of putting the discussion in the right track, so that no details shall be discussed before voting on the motion of Dr. Soto.

DR. SOTO repeated his motion at the request of the President.

DR. AMESSE. Mr. President, there was one point brought out by the Delegate from Cuba that might need clearing up. He expressed the opinion that the United States was not equipped with complete quarantine stations at all ports. That is true in a measure. We have not great quarantine stations at every single small port, but we have inspection stations at those ports within easy distance of great quarantine stations, where if a steamer comes in it is promptly boarded by an officer of the Public Health and Marine-Hospital Service, who gives his opinion and advice as to the treatment of the patient aboard if necessary and then the vessel is remanded to the nearest quarantine station. In the case of sailing vessels the agents are notified and a tug or special steamer can be secured to tow that vessel so that no time is lost. I think that might be adopted in other countries, as in Cuba. In Cuba, where I am stationed, I think there are four quarantine stations and a number of ports where small inspection stations are conducted.

DR. VON EZDORF. I have been in charge of the New Orleans Quarantine Station for the past three years, where all cases arriving on vessels with fever are held at the quarantine station for observation. In this way we have discovered many cases of infectious diseases not quarantinable, and have thus given the seaport of New Orleans protection against foreign infection, that is, the admission of a possible new focus of infectious disease was eliminated.

I have incorporated a good deal of the principles of procedure at a quarantine station in a paper which I wish to include in the reports of the American Delegation; in it I also discuss the foreign quarantine measures adopted at foreign ports. During the period from April 1, 1907, to December 1, 1909, there were removed to the New Orleans Quarantine Station Hospital 395 persons for observation. None of these presented a quarantinable disease. The following is a partial list of the diseases treated: Malaria, 112 cases, of which 54 were of the æstivo autumnal variety. The large majority of the cases of

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malarial fever were confirmed miscroscopically. Typhoid fever, 29 cases; tuberculosis, 11 cases; beri-beri, 1 case; mumps, 1 case; general diseases, 241 cases. The vessel, in the majority of instances, was not detained, only the sick individual was held.

During the past fiscal year, July 1, 1908, to July 1, 1909, the following is a list of diseases in persons passed on vessels, that is cases not detained for observation: Typhoid fever, 6 cases; malaria (confirmed microscopically), 19 cases; tuberculosis, 6 cases; pneumonia, 3 cases; dysentery, 1 case; impetigo contagiosa, 1 case; general diseases, 35 cases; scarlet fever (from domestic port), 1 case.

In our quarantine regulations we have this regulation: "When a vessel arriving at quarantine has on board any of the communicable but non-quarantinable diseases, the quarantine officer shall promptly inform the local health authorities of the existence of such disease aboard and shall make every effort to furnish such notification in ample time, if possible, to permit of the case being seen by the local authorities before discharge from the vessel."

That was done with regard to the cases of infectious diseases passed on vessels. With regard to vessels arriving with these diseases on board, no particular measures are taken at the quarantine station, as we are not dealing with a quarantinable disease.

In following this practice we have reduced very considerably the foreign source of infectious disease entering our seaports. I think that it would be a valuable protection and addition for the sanitation of a seaport town if every measure and every precaution necessary is taken to eliminate foreign sources of infection.

THE PRESIDENT. Let us take a vote on the motion of Dr. Soto.

DR. LICÉAGA. I beg to make a remark on Dr. Soto's motion. He wants it referred to the consideration of the Committee on Sanitation of Ports, but I believe that it should be submitted to Committee in charge of Sanitary Measures.

DR. SOTO. I accept the amendment.

DR. WYMAN. The proper way would be to have a resolution introduced and referred to this Committee, but I do not just know who are on this Committee until I get the list this afternoon, but I propose to call a meeting of that Committee in due course of time, probably tomorrow, and we might just consider that matter referred to the Committee.

DR. SOTO. Do I understand that that is the way of submitting all this?

THE PRESIDENT. All these propositions or projects of resolutions should be referred to the respective committees.

(The point was decided in the manner suggested.)

THE SECRETARY, DR. RAZETTI, read a telegram from Puerto Limón, announcing the arrival of the Delegate from Salvador, Dr. Alfonso Quiñones, and the President requested the Secretary to go to the railroad depot to meet that Delegate.

On motion of Dr. Wyman, duly seconded, the session adjourned at 5 P. M.

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FOURTH DAY, WENESDAY, DECEMBER 29, 1909.

Morning Session.

The Conference was called to order at 9:30 A. M. by President Ulloa, the following Delegates being present: Drs. Amador, Roberts, Quiñones, Wyman, Amesse, von Ezdorf, Licéaga, Monjarás, Toledo, Vásquez, Porras, Acosta, Razetti, Ulloa, Durán, Soto, Rojas, and Castro.

THE PRESIDENT. As the Spanish minutes for the previous session are not yet ready, they will be read in this afternoon's session.

(The President introduced the Delegates from Salvador and Nicaragua, Drs. Alfonso Quiñones, and Dr. Vicente Castro Cervantes, respectively.)

THE PRESIDENT. I request the Delegates that they follow strictly the parliamentary provisions with respect to the period and number of times in which they can take the floor, in order that we may make possible the multiple and enormous work in the Secretary's office. (The President then made an explanation in regard to the nature and character of the work of the Conference.)

THE DELEGATE FROM SALVADOR, DR. QUIÑONES, after stating the causes that prevented him from attending the inauguration of the Conference, read his report, which appears on page 153 of the Appendix.

THE PRESIDENT. The Delegate from Nicaragua, Dr. Castro, having been just appointed, has had no time to prepare his report, and he requests that he be allowed to read it another time.

We shall now proceed with the pending discussion on the sanitary condition of ports and measures that may be proposed for the betterment of such conditions. The discussion is therefore opened.

THE SECRETARY, DR. RAZETTI, read the list of the Delegates who constitute the Executive Committee.

THE PRESIDENT. In order to give that Committee time to prepare the subjects that are to be submitted to the discussion of the Conference, I shall adjourn the session half an hour before the usual time.

Following the order of the program, we now come to the reports on the Registration of Population and the rate of mortality in the respective countries, and the discussion of said reports; to this end we shall do away with the alphabetical order of the nations represented, and I request the Delegates who have such reports to present them.

I request Dr. Wyman to submit, as soon as he is ready, the report of the committee of which he is the chairman, and then formulate the resolutions pertaining to the different ports and cities and send them to the table so that we may continue with the discussion of the subjects at the following session.

DR. WYMAN. Would it be proper to convene the committee during the session, or between sessions?

THE PRESIDENT. Well, we will leave that to you.

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DR. WYMAN. I contemplated calling that committee immediately after this morning's session.

THE PRESIDENT. We shall end the session early so as to give you time.

DR. AMESSE. Are you going to call the roll of countries?

THE PRESIDENT. No. Any special report will be received from anybody.

DR. AMESSE. Mr. President and Delegates, this report is relative to the registration of population and rate of mortality in the United States for the year 1908. (The report appears on page 190 of the Appendix.)

DR. MONJARÁS submitted his report verbally in Spanish, exhibiting several comprehensive and interesting statistical tables.

DR. ROBERTS submitted his report in Spanish.

DR. MONJARÁS then asked him if in the Republic of Cuba was published the Weekly Statistical Bulletin, which question gave rise to a discussion in which each of those Delegates took the floor twice, and the point was completely explained.

The session then adjourned at 10:30 A. M.

Afternoon Session.

The Conference was called to order by Dr. Ulloa at 2:35 P. M., the following Delegates being present: Drs. Amador, Roberts, Quiñones, Wyman, Amesse, von Ezdorf, Licéaga, Monjarás, Vásquez, Porras, Acosta, Razetti, Ulloa, Durán, Soto, and Castro.

The Spanish minutes of yesterday's session were read and approved. During its discussion, Dr. Durán stated that he was gratified to see that, although his motion regarding the manner in which minutes should be read was voted down, it was now being followed.

THE PRESIDENT stated that on account of the illness of the stenographer it was impossible to give in full the speeches of the Delegates, and he requested that any one of them would be so kind as to make a motion to reconsider the proposal by Dr. Durán to the effect that the minutes be read in extracted form, and that while existing difficulties were not overcome, he requested of the Delegates to go to the Secretary's office to revise their remarks.

DR. VÁSQUEZ presented the motion referred to, which was approved, together with the aforesaid minutes.

THE PRESIDENT stated that he had received a committee composed of the Licenciado Don Leonidas Pacheco and Dr. José Maria Castro, offering the Delegates a dance in the National Theater on the 31st instant, which was dedicated to the Conference by the Costa-Rican Society, and requested the Delegates to suggest the manner in which that offer should be answered.

DR. LICÉAGA made a motion, which was carried, authorizing the President to accept the offer in the name of the Delegates.

THE PRESIDENT reminded the Delegates that at 9 o'clock this evening would be held the reception in the Legation of the Mexican United States, and announced that the Conference was to proceed with reports upon mortality and morbidity statistics and discussion of the same.

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DRS. RAZETTI, VÁSQUEZ, QUIÑONES AND DURÁN, to whom Dr. Soto yielded, read their respective reports.

DR. CASTRO read a speech and excused himself for not having been able to obtain the necessary data, on account of having been disappointed and to the special circumstances existing in the country which he represents.

DR. PORRAS stated that the report that he had presented covered the subject under discussion.

THE PRESIDENT made explanations in regard to the statistical figures read by Dr. Durán, stating that there appears to be more mortality in San José than that which really exists, due to the fact that patients come to the hospitals of San Juan de Dios from other ports of the Republic, and the same is the case in Limón, where are gathered all the patients of the coast line, with the result that such deaths are charged to those cities, although properly belonging to other sections of the Republic.

DR. MONJARÁS made a few general remarks in order to make such statistics as uniform as possible, and regarding the most scientific way of keeping demographic records.

DR. WYMAN. Mr. President, it seems that no shorthand notes were taken of Dr. Monjarás' address, and it seems to me that some things in his address should appear in the printed report, and I would suggest, if it meets your approval, that he be invited to write out what he has said, or a summary of it for inclusion in the printed proceedings.

THE PRESIDENT. At the beginning of the session, when I explained the difficulties we were laboring under on account of our Spanish stenographer being sick, I requested all those who made motions to pass them in to the Secretary's office, and also their speeches.

All motions were taken note of and I shall make it a point to call Dr. Monjaras' attention to this.

DR. WYMAN. Mr. President, when you are through with the particular subject, I should like to be informed and to have the privilege of presenting a resolution which would go to the proper committee.

DR. AMADOR addressed the Conference relative to vital statistics, tuberculosis, etc., in the Spanish language.

THE PRESIDENT addressed the Conference in Spanish and signified to Dr. Wyman to proceed.

DR. WYMAN. Mr. President, I will ask the stenographer in English to take this down as I read it, and I would ask further that yourself, or Dr. Vásquez, repeat my language paragraph by paragraph, so that the other Delegates may understand.

DR. VÁSQUEZ was appointed to do so.

DR. WYMAN. The resolution is on the destruction of rats on vessels, and is as follows:

WHEREAS, plague is a disease which is carried from one country to another by the rat, and

WHEREAS, the rat commonly infests vessels engaged in commerce, and

WHEREAS, rats in vessels may be destroyed by measures that are not difficult of enforcement and that involve but moderate expense, and

WHEREAS, the further spread of this disease among the countries of the Western Hemisphere is a matter of grave concern and should be prevented for the sake of preserving human life and for the preserving of commercial prosperity in the ports of the American Republics; therefore be it

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Resolved, That it is the duty of owners and masters of vessels to rid their vessels of this pest and to keep them free therefrom; and be it further

Resolved, That this should be accomplished by the periodical fumigation of holds of vessels with sulphur gas at periods of from three to six months and at times when advantage may be taken of the vessels being free from cargo or laid up for repairs, and at all other times vigilance should be exercised by the masters for the destruction of rats by such other means as they may deem most effective.

THE PRESIDENT. I leave it to the consideration of the Conference whether we will refer this resolution to one of the committees already appointed or consider it under the sanitation of ports and cities.

DR. WYMAN. I will turn it in.

DR. ROBERTS addressed the Conference in Spanish.

THE PRESIDENT addressed the Conference in Spanish.

DR. WYMAN. It might go to your committee, Mr. President, on resolutions, to be considered and reported on to the Conference, or the Committee on Sanitation, just as you see fit, but it does not apply to the Committee on Sanitation of Ports particularly.

THE PRESIDENT. No, not particularly, but we may pass it over to that committee. It is for the protection of passengers.

DR. WYMAN. Why can't it go to the Committee on General Resolutions? It is a general resolution.

THE PRESIDENT. That is the Executive Committee.

DR. WYMAN. The Executive Committee—your advisory committee.

THE PRESIDENT. Yes, it might be considered in that.

THE PRESIDENT then addressed the Conference in Spanish, followed by Dr. Licéaga, in the same language.

DR. WYMAN. Would it be in order for me to make some explanation of this resolution now?

THE PRESIDENT. Yes. I think it would be better, though, when we discuss that in Executive Committee.

DR. WYMAN. Have it reported tomorrow, then?

THE PRESIDENT. Yes.

DR. WYMAN. Shall I turn it over to you, Mr. President?

THE PRESIDENT. If you please, sir.

THE PRESIDENT announced that in accordance with the order of the day, and there being no further remarks to be made on the subject under discussion, it was in order to proceed with the subject on measures against yellow fever and malaria.

DR. LICÉAGA read a speech in regard to the subject just referred to, and closed it, suggesting an amendment to Section 9 of the Sanitary Convention of Washington.

THE PRESIDENT. The paper is opened for discussion.

DR. AMESSE. Mr. President, I would like to know from Dr. Licéaga if it is possible for a passenger to proceed from a port like Merida by way of Vera Cruz, embark on a ship there, and arrive in Havana in less than six days.

THE PRESIDENT translated the question for Dr. Licéaga, who replied in Spanish.

THE PRESIDENT. Dr. Licéaga says it is three days from Merida to Vera Cruz and three days from Vera Cruz to Havana; that is six days.

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DR. AMESSE. Well, in continuation, if you will allow me, I would say that I know from many sources in Havana that the only reason Vera Cruz has been quarantined against is because of this fact, that passengers would proceed from Merida, which is infected or has been infected, by way of Vera Cruz, make their connections there and proceed direct to Havana. If vessels are disinfected in the port of Vera Cruz the elapsed time after such disinfection will count in the period of detention. A vessel requires three days to come from Vera Cruz, and if the vessel has been disinfected before sailing that three days will be deducted from the six days under the United States Regulations, but a great many ship owners will not permit their ships to be disinfected. The Ward Line will not permit their vessels to be disinfected at Vera Cruz and the consequence is that when passengers arrive at Havana from Vera Cruz they are held at Triscornia six days, whereas if the ship had been disinfected with pyrethrum at very little cost they could proceed from Triscornia in three days because it is a three days' trip. If the ship owners would co-operate with us we could reduce that six days to three days in quarantine.

THE PRESIDENT translated the above to Dr. Licéaga and Dr. Licéaga replied in Spanish.

THE PRESIDENT. Dr. Licéaga says that all the vessels are fumigated by them, even the vessels of the Ward Line, and that even if the Mexican authorities didn't do it that your agent at Vera Cruz would compel them to.

DR. AMESSE. I beg to differ with Dr. Licéaga in stating that no Ward Line vessel has been disinfected except when disease has been found aboard. I can give you that in writing from the Superintendent of the Line. The Cuban Government has an officer at Vera Cruz, but so far as I can find out he does nothing because he is not permitted to fumigate vessels proceeding from that port. Last year he was allowed to fumigate ships of the Spanish Transatlantic Line, the Hamburg-American Line and the French Line and passengers on those lines were held in Triscornia but one day, while those of the Ward Line were held six days from arrival. No vessels of the Ward Line have been fumigated in Vera Cruz at all. That is official and I can prove it.

THE PRESIDENT translated the above remarks to Dr. Licéaga, and after a discussion with the latter, spoke in English as follows:

THE PRESIDENT. Dr. Licéaga says that he promises to oblige the different steamers or vessels sailing from Vera Cruz to be fumigated and then, of course, the treatment ceases because of that fumigation. He insists on that, although I called his attention to the possibility of infection being carried by mosquitoes which may not have completed their time and might be on the vessel and bite someone who would develop the sickness afterward.

DR. AMESSE. Mr. President, I was speaking for Cuba and not for the United States. I would say for the information of the Conference that all vessels leaving Vera Cruz for the United States are fumigated by our officer and on arrival at quarantine the time of passage from port to port is deducted. It is so at New Orleans and other ports where similar conditions exist, but at Cuba the detention is six full days because the steamship lines will not allow fumigation. The

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United States officer at Vera Cruz cannot insist on their fumigation because they are going to a foreign port.

DR. MONJARÁS addressed the Conference in Spanish.

THE PRESIDENT. Dr. Monjarás says that no passenger goes from Merida to Havana by way of Vera Cruz; that they leave Merida, go to Progreso and proceed from Progreso to Havana. In that case there would be no use in that question.

DR. AMESSE. All the steamship lines do not touch at Progreso; for example Spanish passengers want to go on a Spanish line. They do not go to Progreso, they go to Vera Cruz and get it. We have a record of passengers who came by way of Vera Cruz into Havana.

DR. MONJARÁS addressed the Conference in Spanish.

DR. VON EZDORF. In our classification of ports which we quarantine we have infected ports and suspected ports. Now the suspected ports are such ports as are in infectible territory and have communication with infected ports. It has been observed in the past that those suspected ports, while they have apparently remained clean, have been taking in people from the infected territory and those ports might therefore have some case develop yellow fever and thereby infect some mosquitoes in that territory. Now, it has happened more than once, and is going to happen again, so that we are running a risk in having communication with suspected ports in that there may be some unknown infection at that port which may in turn infect some individual coming to our ports in the United States; that is to say, to some territory, infectible territory which we have in the south, which we are guarding by quarantine measures against suspected as well as infected ports. As Dr. Amesse said, we have been fumigating vessels at the suspected ports as well as infected ports, so that the time in transit of the vessel has been counted and deducted from the period of observation that would otherwise hold good if the vessel had not taken that precaution of fumigation at the foreign port. Now, I might as well illustrate this with regard to Mexico, and I can illustrate this principle by an experience I had in Colon in 1905. There was a person who left Managua, apparently a healthy place, and went to a seaport which was reported as clean, no yellow fever having been known to occur there, although that place itself had had communication undoubtedly with some infected territory. That individual slept there over night, went to Panama, completed his period of observation of five days; he arrived at Colon, embarked on a vessel bound for New York. The vessel didn't sail until the following day and during the night that individual was taken sick. He was at once taken to a hospital and isolated and a positive diagnosis of yellow fever was made. He died five days later. This shows an incubation period of five days and sixteen hours. That simply illustrates the danger which we have to guard against with regard to suspected ports, ports which remain infectible and are having communication with known infected territory. Probably Dr. Licéaga will remember when yellow fever occurred in Laguna, I think just two years ago, in a vessel which came from Venezuela and infected that port. Although none of the ports along the coast were known to be infected, yet they had communication with this only known source of infection, which was then Laguna, and thereby by having this communication with this infected port they became sus-

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pected and we were careful enough at the time, as soon as we knew the communication was going on, free communication, to regard those places as suspected and take the precaution which we always take of fumigating vessels at those ports before sailing for a southern port in the United States. It was not very long before a case of yellow fever was found in Vera Cruz and the source of that infection in Vera Cruz was unknown; consequently if Laguna is accepted as the only known point of infection it must have been from Laguna that some case finally entered Vera Cruz and infected that port. So that I feel it is only reasonable where a territory which is known as infectible territory is having free communication with infected territory without detaining under observation every individual coming from that place, that we should take those official precautions and regard them as suspected ports.

THE PRESIDENT translated Dr. von Ezdorf's remarks for the benefit of the Spanish speaking Delegates, after which Dr. Licéaga addressed the Conference in Spanish.

DR. VON EZDORF. I would like to ask Dr. Licéaga a question about this vessel which developed yellow fever at Laguna. Did that come from a known infected port in Venezuela? Does he know that? Apparently he took no precautions with that vessel at all until the disease developed.

THE PRESIDENT. I understood Dr. Licéaga to say that he understood there were some cases of yellow fever in that part of Venezuela, but he was not sure.

DR. VON EZDORF. Then that territory was really suspected territory. That is the point I was trying to make. We are taking precautions with regard to that suspected territory. Had that same vessel, instead of going to Laguna, come to the United States that vessel would have undergone fumigation and detention which would have discovered the infection on board the vessel.

Then followed a discussion in Spanish between the President and Dr. Licéaga, after which Dr. Licéaga read from a pamphlet in Spanish.

THE PRESIDENT. Dr. Licéaga proposes a resolution reforming the Sanitary Convention at Washington, Article IX. Of course this will be referred to the Committee on Yellow Fever and this committee will at the proper time pass upon it and refer it to the Executive Committee, which will refer it back to the Conference for discussion.

DR. ROBERTS addressed the Conference in Spanish and read resolutions relative to yellow fever.

THE PRESIDENT. Those will be referred for consideration to the Yellow Fever Committee.

The Conference then adjourned at 5 P. M. until December 30, 1909, at 9 A. M.

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FIFTH DAY—THURSDAY, DECEMBER 30, 1909.

Morning Session.

The Conference was called to order by President Ulloa at 9:30 A. M., the following Delegates being present: Doctors Amador, Roberts, Quiñones, Wyman, Amesse, von Ezdorf, Licéaga, Monjarás, Acosta, Razetti, Toledo, Vásquez, Porras, Ulloa, Durán, Rojas, Soto, Castro.

THE SECRETARY, DR. RAZETTI, stated that he was unable to read the minutes, because the stenographer had not given him a copy thereof, and the President expressed his regret that, for several reasons, the work of the Secretary's office should be disorganized, and he promised to do his best to overcome these deficiencies.

THE SECRETARY for the English section, Dr. von Ezdorf, read the minutes for the afternoon's session of December 28th, which were read and approved without discussion.

THE SPANISH SECRETARY read a communication from the Minister of Foreign Affairs, stating that the credentials of Dr. Vicente Castro, as delegate from Nicaragua to the Fourth International Sanitary Conference, had been examined and found correct.

THE PRESIDENT read a telegram from the Delegate of Chile stating that floods interrupted traffic, but that he would come on the first steamer.

DR. WYMAN. Mr. President, I understand that some additional information of a very grave character has been received by the Delegate from Guatemala, and if it is now in order for him to present it, I move that he be allowed five minutes for that purpose to complete the record for the published proceedings.

THE PRESIDENT translated the remarks of Dr. Wyman into Spanish.

DR. TOLEDO then gave some data showing that the amount of $2,000,000, that, as was said, had been appropriated for the sanitation of Puerto Barrios, was not only the correct one but that more than said amount had been spent for the purpose, and to prove his assertion he made reference to a contract entered into between the Government of Guatemala and the United Fruit Company concerning the carrying out of the sanitation works of the report referred to.

THE PRESIDENT asked, in Spanish, whether there were any remarks to be made on the subject of malaria.

DR. LICÉAGA made a report on the campaign that was being carried out in Mexico against the said disease, pointing out, among other measures, the organization of sanitary squads in places susceptible to the development of that disease, which squads were charged with the destruction of the *anopheles* mosquito, employing therefor such methods as were known; he also mentioned the appointment of traveling railroad inspectors for the sanitation service. All these, Dr. Licéaga said, were independent from canalization works, drainage of swamps, etc. He then spoke of the difficulties connected with the isolation of patients

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in cases of malaria; he called attention to the fact that much had been done in Mexico towards educating the masses by means of pamphlets descriptive of etiology and treatment of the disease, and closed his remarks saying that, as a prophylactic means, great quantities of quinine are distributed in all the sections of the country wherever such disease may appear.

DR. DURAN then took the floor to emphasize the great importance that the application of quinine had as a prophylactic means, especially when there were great difficulties for the complete destruction of the mosquitoes in all places, particularly in large areas.

DR. VON EZDORF. Mr. President, we in the United States have no jurisdiction in handling malaria in the various States. That is done by the several State and municipal health authorities. In New York and New Jersey some work has been done to a great extent. They have drained the swamps, as it is in the swamps where the *anopheles* mosquito breeds in particular. Of course we have in the south malaria to a great extent because that is where the *anopheles* prevail, but the States in the south are adopting measures as rapidly as possible, that is, drainage and good water supply, and other sanitary measures so as to eliminate so far as possible the malaria mosquito. Of course, malaria still remains in the south where they have large swamps, and it remains for them to do a great deal of work toward draining these swamps. The one thing that is being done by the United States Government, in effect but not intentionally, to eliminate the foreign source of malarial infection is done at its quarantine stations; for example, at my station, and I think it to be the case also at Mobile, Ala., and Tampa, Fla., that a case arriving from the tropics found to be sick or having fever, is detained at the quarantine station for observation and treatment; in that way we have eliminated to a great extent the importation of additional infection of malaria into our southern country. In that way, also, I determined, during the year 1907, that there was a particular wharf in the Canal Zone which was infecting ships, that is to say, there was malarial infection of the æstivo autumnal variety at that wharf so that crews coming on board vessels lying alongside that wharf would arrive at our station with that particular infection. So also have I determined with regard to Tampico, as Dr. Licéaga states in connection with malaria in his country. I have discovered in the same way and determined that malaria was prevailing and infecting crews of vessels coming from Tampico during the latter part of this year. The only point I wish to make is that so far as the United States is concerned we are at our quarantine stations eliminating the additional infection of malaria from our country.

DR. MONJARÁS, referring to the remark of Dr. Durán, said that the question of large territorial areas was no great obstacle in the campaign against malaria because the main point was the destruction of mosquitoes in the suburbs of cities, towns, or settlements, and not wherever the mosquito may be found; but it was sufficient to destroy the larvæ in the inhabited places and their surroundings, organizing squads charged with the duty of inspecting once a week such places as should be made healthy. He closed his remarks by saying that he was in accord with the principle that quinine should be administered in prophylactic doses.

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THE PRESIDENT at this moment called the attention of the Delegates to the fact that the discussions should be confined to the subjects of the provisional program, in order to advance as much as possible the great amount of work before the Conference.

THE PRESIDENT stated that it was now in order to discuss the report on the mortality and morbidity statistics of the different countries.

DR. ROBERTS took the floor, referring to the statistical data contained in the report that he had read in a previous session.

DR. CASTRO spoke of the advisability that statistics regarding malaria, if they were to be correct, should be based upon microscopical diagnosis.

DR. ROBERTS stated that the malaria cases in Cuba were generally inspected by a special commission called "Special Committee on Infectious Diseases," pointing out also the fact that there were good laboratories where the diagnosis on malaria cases could be verified.

DR. LICÉAGA and DR. MONJARÁS stated that, as a general rule, it was sufficient to possess clinical knowledge of diagnosing malaria in the majority of cases, which is the most important point for the preparation of statistics because according to the rules of epidemiology, when malaria is general in a locality, one must take into consideration as if it were an actual case of malaria, even those cases which are not of the true type of malaria from the clinical or bacteriological point of view.

THE PRESIDENT. I have called the attention of the Conference to the official program which says "discussion on the different papers presented with reference to sanitary measures against yellow fever and malaria" based on the provisional program sent by the International Sanitary Bureau of Washington, which says "discussion of new discoveries regarding the transmission of yellow fever and malaria by other means than mosquitoes." I am very sorry to have to call the attention of my colleagues to this point, but they are going outside of our program, and although the discussion is a very important one we cannot take it up here. It is a matter for discussion in a medical congress or congress where general matters with regard to these things are taken up. We cannot deal with those things. We have to take it for granted that they have the proper authorities, organizations, and boards of health, and I cannot put in doubt either that the physicians of the different countries do not know enough to diagnose a case of yellow fever or malaria. Those things should be discussed elsewhere. That is my way of thinking and I request my colleagues to let me know if I am right or not.

A vote was taken and the position of the President sustained.

There being no further discussion, another subject of the program was taken up, that relating to protective measures against tuberculosis, bubonic plague, trachoma, and beri-beri.

At this moment Dr. Licéaga took the Chair temporarily.

DR. RAZETTI stated that tuberculosis caused in his country something like five thousand deaths annually, and that for the purpose of fighting the spread of that scourge an anti-tuberculosis league had been created, of which mention was made in his general report.

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DR. ROJAS verbally submitted a resolution providing that this Conference appoint an international commission to prepare a pamphlet written in simple language and within reach of all, descriptive of the campaign against malaria.

THE PRESIDENT PRO TEM. I request the Delegate to submit his proposition in writing.

DR. ULLOA resumed the Chair.

THE PRESIDENT. We are not going to have any special festivities this afternoon, so I would like to have another session of the Conference to get on with our work, as we have a good deal to do yet.

The session was adjourned at 11 A. M.

Afternoon Session.

The Conference was called to order by President Ulloa at 2:55 P. M., the following Delegates being present: Drs. Amador, Roberts, Quiñones, Wyman, Amesse, von Ezdorf, Licéaga, Monjarás, Toledo, Vásquez, Porras, Acosta, Razetti, Ulloa, Durán, Soto and Castro.

THE SECRETARY, DR. RAZETTI, read minutes for the previous session, which were approved after discussion.

THE SECRETARY, DR. VON EZDORF, read the English minutes for the morning and afternoon sessions of December 29th, which were approved without discussion.

THE SECRETARY, DR. RAZETTI, read the Spanish minutes in full as finally copied in the minute book, for the inaugural session, which were also approved.

A telegram was read from Dr. Vial, Delegate from Chile, saying that he expected to arrive in the afternoon, together with his wife, and the President designated Dr. Soto, of the Delegation of Costa Rica, to go, together with the ladies of the Venezuelan Delegation and Miss Ulloa, to the depot to meet the Chilian Delegate and Madame Vial.

THE PRESIDENT stated that the discussion would be continued with regard to plague, tuberculosis, trachoma, and beri-beri.

DR. DURÁN, after a brief statement, presented a resolution for the protection of laborers against malaria, which proposition, after being read in Spanish and English, was referred to the respective committee for consideration.

THE PRESIDENT. Are there any other resolutions or discussions with regard to malaria, tuberculosis, yellow fever or plague?

SURGEON-GENERAL WYMAN. No resolution that I know of, but we have some remarks to make upon the subject, if they are in order now.

THE PRESIDENT. They are in order. Anything with regard to these topics.

DR. AMESSE. In the preliminary report of the United States Delegation there was a review, a short résumé, of the work done in the United States with regard to plague and tuberculosis. That was gone into *in extenso* and will be published in the proceedings. Regarding trachoma it appears the time has arrived when we should take some concerted action not only regarding trachoma and beri-beri but also

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regarding favus and leprosy. The paper read by Surgeon-General Wyman at the Conference in Mexico made mention of the fact that since 1897 trachoma has been considered a dangerous contagious disease and in accordance with our immigration laws arriving aliens so afflicted are refused entrance to the country. Now, the report sent in by the Delegates at that Convention showed that trachoma and beriberi were at that time practically unknown in various South American and Central American countries while laws similar to our own were enforced in Brazil, Cuba and Mexico. (He then read report on page 185 of the Appendix.) I would request that in view of the importance of this Dr. Vásquez act as interpreter for the Spanish Delegates.

DR. VÁSQUEZ translated the above remarks into Spanish as requested.

DR. LICÉAGA stated that in the Mexican immigration law beri-beri was included among the diseases, the admission of which is prohibited.

THE PRESIDENT. Is there any Delegate who wishes to take the floor?

(There being nobody desiring to take the floor, the discussion on the subject was closed.)

THE PRESIDENT. Are there any reports of committees to be presented?

DR. WYMAN. We have the report of the Committee on Sanitation of Ports, which I would like to read, and then it would go to the Executive Committee, as I understand it.

THE PRESIDENT. Yes, sir.

DR. WYMAN. I believe that Dr. Licéaga has translated it into Spanish, so I will read the English and afterwards he may read the Spanish.

(He then read the report of the Committee on Sanitation of Cities and Seaports, which appears on page 107 of the Appendix.)

DR. LICÉAGA then read the same resolutions in Spanish.

DR. WYMAN. Mr. President, I have a resolution to offer which we invited Dr. Licéaga to join with the committee in preparing. I move that we be allowed to affix his name to the resolutions. If that motion is acceptable I suppose it would go to the Executive Committee.

THE PRESIDENT. That has to go to the Executive Committee because Dr. Licéaga does not appear in that committee and no motion has been made to that effect. It was entirely unknown to me that he was a member of that committee.

SURGEON-GENERAL WYMAN. We invited him to join with us, not as a member of the committee, but simply to assist us. Another matter, Mr. President. Unless there is objection to the contrary these resolutions would be forwarded by the International Sanitary Bureau to the Conference at Buenos Ayres, as that Bureau is charged with the disposal of resolutions adopted by the Conference. We would like to have you consider that at any rate, and if there is no objection—it would make no particular difference—but if there is no objection it will be done that way.

THE PRESIDENT stated this proposition to the Conference, in Spanish, which was approved without discussion.

THE PRESIDENT then asked if there were any other resolutions to be offered by committees, and there being no response, he stated that the Conference would proceed to the next subject on the program, regard-

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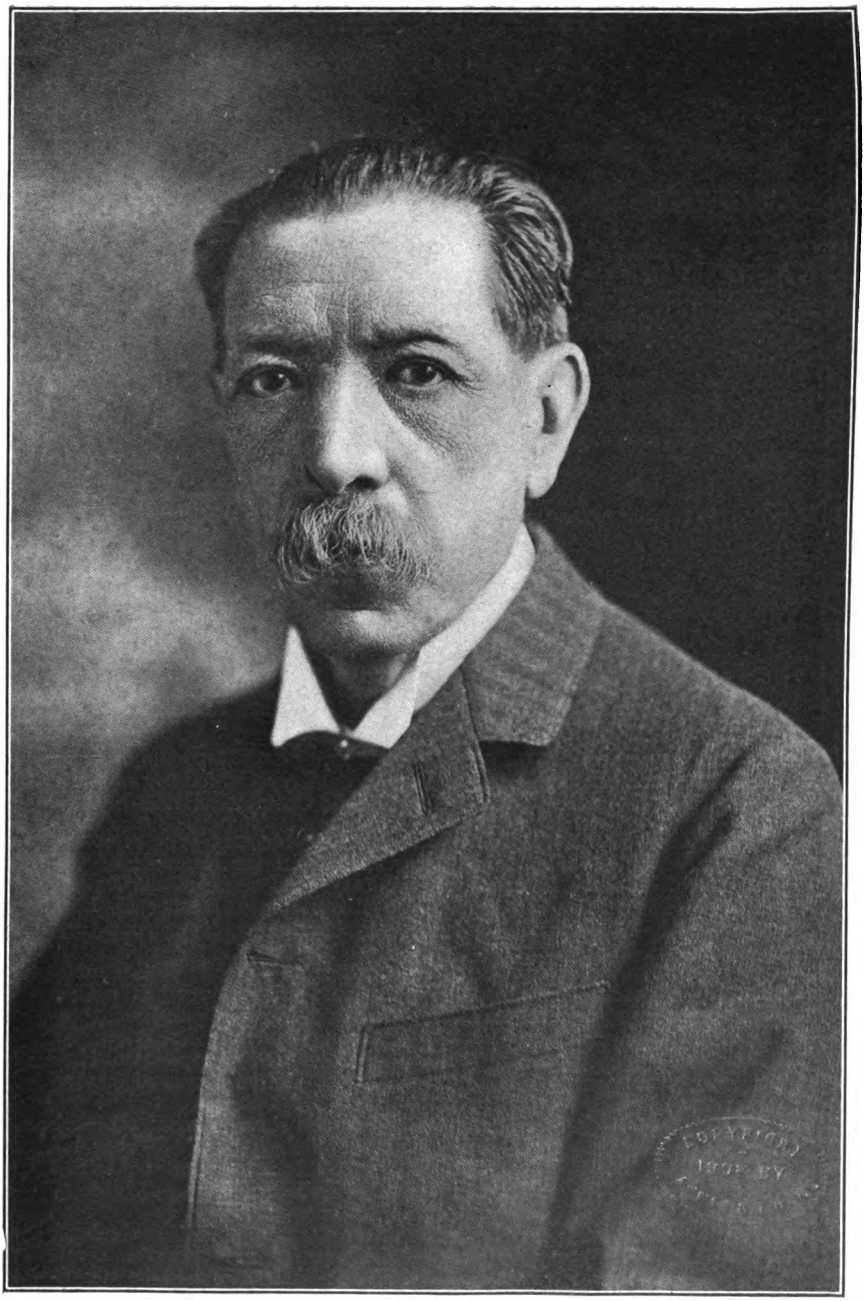

Photo by Harris and Ewing

DR. EDUARDO LICÉAGA, PRESIDENT OF THE SUPREME COUNCIL OF HEALH OF MEXICO,

President of the Third International Sanitary Convention of American Republics.

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THE LATE DR. MARTÍN AMADOR, OF COLOMBIA,

Delegate from Colombia to the Fourth Sanitary Conference of the American Republics, held in San José de Costa Rica, 1909-1910.

In the early part of March of the present year, our very esteemed colleague, Dr. Martín Amador, who represented the Republic of Colombia in the Fourth International Sanitary Conference of the American Republics, held in San José, Costa Rica, from December 25, 1909, to January 3, 1910, died in the Borough of Brooklyn, New York City, where he had lived for several years.

Dr. Amador was born in the city of Cartagena, Republic of Colombia, in 1857, and graduated as Doctor of Medicine and Surgery in the University of New York in 1877. He practiced his profession with remarkable success in Cartagena, Costa Rica, and later in Brooklyn. He fulfilled with great skill the position of Consul of Colombia in Holland and in Belgium, and Vice Consul of the United States of America in Cartagena.

His genial and kind personality won for him the esteem of all those who knew him, and those of us who had the privilege of being his intimate friends will always deplore his loss, because Martín Amador was one of those very few who could be called real friends, sincere under all circumstances and free from duplicity and envy.

Upon communicating the sad news of the death of the Delegate from Colombia to the Fourth Sanitary Conference, I am sure the sentiments of condolence on the part of all the Delegates will be unanimous and that they all will unite with me in expressing our deep sympathy to Mrs. Amador and the brothers of the colleague whose loss we sincerely deplore.

JUAN J. ULLOA.

New York, August 27, 1910.

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ing the appointment of three physicians to be made by the different Delegations, which appointments were finally made in the following manner:

Chile	(See page 77.)
Colombia	Dr. Amador requested that he be allowed to make the appointments at another session. (See page 79.)
Costa Rica	Dr. Carlos Durán Dr. Elías Rojas Dr. José María Soto A.
Cuba	Dr. Juan Guiteras Dr. Enrique B. Barnet Dr. Aristides Agramonte
United States of America	Dr. A. H. Glennan Dr. J. W. Kerr Dr. John W. Trask
United States of Mexico	Dr. Eduardo Licéaga Dr. Jesús Monjarás Dr. Nicholás Ramírez de Arellano
United States of Venezuela	Dr. Pablo Acosta Ortiz Dr. Carlos Manuel Cabado Dr. Luís Razetti
El Salvador	Dr. Tomás G. Palomo Dr. Francisco Guevara Dr. Rafael B. Castro
Guatemala	Dr. Salvador Ortega Dr. Juan J. Ortega Dr. José Azurdia
Honduras	Dr. José M. Ochoa Velásquez Dr. Ignacio Castro Dr. Juan Angel Arias
Nicaragua	Dr. Luís Debayle Dr. Rodolfo Espinoza Dr. Juan B. Sacaza
Panamá	Dr. Luís Urriola Dr. Alfonso Preciado Dr. Augusto S. Boyd

THE PRESIDENT called attention to the fact that the appointments for Chile had not yet been made, because the delegate from that country was absent, but that he would be requested to do so in due time.

THE PRESIDENT then said that the subject relating to the sanitation of cities, and especially of ports, was now open for discussion.

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DR. DURÁN. The Government of Costa Rica to-day received a telegram from our Minister in Europe to the effect that they had bought all the iron work, tubing, etc., for the water-works and sewerage of San José, which materials will be sent very soon and the work begun on the water system, and it is hoped will be completed by the month of May, and we will have a complete sewerage system in San José in two years from now.

DR. LICÉAGA. In order not to repeat what I have said in regard to the subject under discussion, I refer the Conference to the general report presented by the Mexican Delegation.

THE PRESIDENT. If there is nobody else who would like to discuss the subject of the sanitation of ports and cities further, the subject will be closed.

DR. AMESSE. Mr. President, is it in order to read provisional resolutions regarding the sanitation of ports?

THE PRESIDENT. Yes, sir.

DR. AMESSE. I have here a draft of resolutions which we will introduce tomorrow. (He then read the resolutions, which appear on page 107 of the Appendix.)

DR. VÁSQUEZ translated the said resolutions into Spanish.

THE PRESIDENT. The resolutions will be referred to the Committee on the Sanitation of Ports.

DR. CASTRO requested that he be allowed to refer to a disease called "Vitacia."

THE PRESIDENT called his attention to the fact that that disease not being included in the order of the day, it would be taken into consideration in the session of the 31st, when it would be in order to discuss it.

DR. LICÉAGA made a few remarks with respect to the same point.

THE PRESIDENT. The subject of Sanitation of Ports and Cities having been sufficiently discussed, we will now proceed with the next one on the program, which refers to measures for the protection of passengers sailing on vessels which leave infected ports.

DR. ROBERTS stated that as the Delegation of Cuba was going to submit a resolution identical with another one of the Delegation of the United States of America, he adhered to the proposition of the latter.

DR. AMESSE. Mr. President, the following measures employed for the protection of passengers who embark in vessels from infected ports —the regulations deemed advisable by the Public Health and Marine-Hospital Service of the United States for the protection of passengers— may be outlined as follows: (He then read the paper, which appears on page 192 of the Appendix.)

DR. VÁSQUEZ, on request of the President, translated the remarks of Dr. Amesse into the Spanish language.

(The proposition of Dr. Amesse was referred to the respective committee.)

DR. LICÉAGA read a paper on measures for the protection of passengers who embark in infected ports. (See Appendix, page 171.)

THE PRESIDENT. It is proposed that Dr. Durán be added as a member of the Executive Committee.

(This motion was agreed to.)

The session then adjourned at 4.37 P. M.

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SIXTH DAY—FRIDAY, DECEMBER 31, 1909.

Morning Session.

The Conference was called to order by President Ulloa at 9.35 a. m., the following Delegates being present: Amador, Quiñones, Castro, Roberts, Vial, Amesse, Wyman, von Ezdorf, Licéaga, Monjarás, Acosta, Vásquez, Porras, Soto, Rojas, Durán, Toledo, Razetti, and Ulloa.

THE SECRETARY, DR. RAZETTI, read the Spanish minutes for December 30, which were approved without discussion.

THE SECRETARY, DR. VON EZDORF, read the English minutes for the morning session of December 30, which were also approved without discussion.

THE PRESIDENT. I have the pleasure to inform the Delegates that we have among us Dr. Manuel Camilo Vial, Delegate from the Republic of Chile, whom I have the honor to introduce to this assembly, regretting that the obstacles he encountered during his voyage should have deprived us of the pleasure of his company during the previous sessions. I rejoice at his arrival, and feel sure that all the members of this assembly will welcome him as he deserves.

DR. VIAL expressed his gratitude to the President, and delivered his credentials.

THE PRESIDENT referred them to the Committee on Credentials. He then stated that if there was a session in the afternoon, Dr. Vial could have the floor to present his report.

THE SECRETARY, DR. RAZETTI, read a telegram from the Minister of Foreign Affairs of Paraguay, stating that that Republic will conform to the conventions so far adopted, and explaining why it had not been able to send a representative.

THE PRESIDENT stated that the next subject on the programme was that relating to the forms for sanitary documents which are to be used by the nations signatory of the Sanitary Convention of Washington.

DR. ROBERTS. I have here a model that I want to submit for bills of health. This is one of the most important forms, because it enables one to know the conditions of a ship. This model is the same one used by the United States of America and Cuba. It is also somewhat similar to that used in Venezuela. Small additions have been made to it to the end of furnishing the physician who may examine it with as exact an idea as possible of the conditions of the ship to which it refers.

(He then delivered the models referred to and the President ordered that they be submitted to the respective committee. See Appendix, page 110.)

DR. LICÉAGA stated that he also had with him the models used in Mexico, and begged to submit them to the consideration of the Conference.

(They were also referred to the respective committee.)

DR. AMESSE requested the Delegates having models of sanitary docu-

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ments to pass them to Dr. Roberts, Delegate from Cuba, chairman of Committee on Sanitary Documents.

THE PRESIDENT requested the Delegates from Costa Rica to give to said Committee the Consular regulations of the Republic, wherein are contained the models of the documents referred to.

The members of the Committee on Sanitary Documents were requested to convene after the morning session, in order that they might submit their reports in the afternoon session.

The subject relating to measures against diseases not included in the Sanitary Convention of Washington of 1905 was then taken up.

DR. LICÉAGA read a paper relative to means of preventing the introduction of diseases.

DR. SOTO. When the Delegation of Costa Rica presented its report, I made a suggestion relating to two diseases which are extremely contagious, and which I have not seen among those included in the Sanitary Convention of Washington as transmissible diseases. I refer to hydrophobia and hydatid cysts of the liver.

In Costa Rica we have not had as yet any cases of rabies, nor of that terrible scourge known as hydatid cysts of the liver, a disease transmitted by dogs infected with it; and in view of the fact that there are continuously imported to our country from abroad high pedigree dogs for breeding purposes, the introduction of such dogs being unrestricted, I believe it is high time to prevent the introduction into the country of infected dogs which might spread among us those terrible diseases, thus increasing mortality.

Therefore, I take the liberty to submit to the consideration of the Conference the resolution which I am now going to read. (He then read the proposition that appears on page 114 of the Appendix.)

THE PRESIDENT caused the above proposition to be referred to the Executive Committee.

DR. CASTRO. Messrs. Delegates: with reference to what I said yesterday, regarding the diseases not included in the Sanitary Convention of Washington, and the disease known as "Bilharziosis," and believing that it is now in order to submit to the consideration of this Conference whether it is advisable to include bilharziasis in the said list of contagious diseases, I beg leave to dwell upon a few descriptive details, because my attention has been called by a member of this assembly to the fact that it would be opportune to make a brief statement in regard to that disease, in case any of those here present are not well posted as to that disease.

Bilharziosis, as all my distinguished colleagues are aware, is caused by a parasite known as *distomum hematobium*, and was discovered in Egypt 1850 or 1860; since then it has been found in all the eastern slope on the Mediterranean Sea, in the eastern and central parts of the African Continent, Sudan and Uganda. I have an idea that it has also been found in Madagascar and in the Comores Islands, although I am not sure, because I have not been able to find the necessary data to verify that information.

The parasite is thread-like, and cylindrical; the male is from ten to fifteen millimeters long, and the female a little longer, about twenty millimeters.

The infection is transmitted by means of the eggs, which are char-

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acteristic in this parasite, and which cannot be mistaken for those of any other. Its diagnosis is, therefore, easy.

Now, then, these parasites, which produce most important changes in the organism, are introduced therein by means of drinking water, or by means of vegetables washed in infected water. The parasite infects particularly the hemorrhoidal, rectal, vesical and uterine venous plexus; they are afterwards also found in the portal vein and mesenteric and splenic ramification, in vena cava, in the liver, the lungs, the heart, and the kidneys.

In Egypt the disease is very common, and, although it does not prevail among seventy-five per cent of the population, as I wrongly said yesterday, the percentage of cases does reach fifty per cent, which is indeed an enormous rate.

The principal importance regarding the knowledge of this disease does not lie in the difficulties of prophylaxis—which I do not think would be very difficult—but in the seriousness itself of the disease, because it is an almost incurable malady.

In Costa Rica there has only been recorded one single case, and the Delegate from Cuba—in which Republic, as we know, are very good physicians and competent bacteriologists—told me that he had no idea that such a disease occurs there. In Costa Rica we have observed, accidentally, one single case, which has enabled us to know, at least, the eggs of the parasite. That case arrived in Costa Rica from Venezuela; at least, the patient said that he was born and had lived in that country, where he also contracted the chronic disease of which he was afflicted, and which was a form of dysentery. By pure accident, when the feces were examined, there were found, among other different species, eggs of a peculiar shape which attracted attention and made possible the recognition of the disease.

In view of the above, it seems to me that it would be extremely advisable—since we suspect that the disease in question exists in Venezuela, that it is easily diagnosed, and that, on the other hand, the Delegate from Venezuela told us a few days ago that there were in that country about four thousand deaths annually, on account of dysentery—to determine in all countries, wherever it be possible, how many forms of dysentery are due to this parasite.

At all events, it is necessary to prevent that disease from being introduced in countries where it is yet unknown; to this end I am going to have the honor to read, for submission to this learned assembly, a proposition providing that bilharziasis be included in the list of diseases the admission of which is prohibited by the Sanitary Convention of Washington.

I beg to submit this proposition, together with my esteemed colleague, Dr. Soto, who has authorized me to put his name together with mine in this matter.

I said that the danger of this disease does not depend upon the impossibility of preventing transmission, but rather of upon the impossibility of curing it. The individuals afflicted with this dysentery, or hematuria, are almost doomed to perish, because, as I have stated, it is an almost incurable disease, and the patients live a pitiable existence.

Therefore, it is a disease against which we should protect ourselves

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in the countries where it has not yet been introduced, and as it is easy to avoid it, it seems to me that it is opportune to add it to the list of the diseases the admission of which is prohibited, and that some action should be taken thereon. (Dr. Castro's proposition appears on page 114 of the Appendix.)

THE PRESIDENT. This proposition will be referred to the Executive Committee.

DR. VON EZDORF. Mr. President, our quarantine regulations include the quarantining of three other diseases that have not been mentioned previously in this Conference; typhus fever, smallpox and leprosy. With regard to typhus fever, we have a quarantine of 12 days, which, of course, means that if typhus fever arrives at a port of the United States on board a vessel, the vessel is disinfected and detained to complete 12 days, which is the accepted incubation period of that disease. In regard to smallpox, we require vaccination or proof of recent successful vaccination, and if certain regulations have been observed on the part of the vessels, the vessels are not detained, but the case is removed and the vessel allowed to proceed. With regard to leprosy, no cases of leprosy are allowed to enter the United States. There are other diseases that interest our country a great deal and on which a great deal of study and work is being done, which have already been mentioned by Surgeon-General Wyman, namely, Pellagra, Uncinariasis, and Tuberculosis. I should like to propose that they be given consideration in regard to the protection of our countries against further spread of those diseases.

(Dr. von Ezdorf's remarks were translated into Spanish by the President, for the benefit of the Spanish Delegates.)

DR. ACOSTA. In answer to the allusion made by the Delegate from Nicaragua regarding the existence of bilharziasis in Venezuela, I will say that neither in the Vargas hospital, which is a cosmopolitan hospital, and to which patients from all parts of the Republic are taken, nor by investigations in the different cases of dysentery, microscopical studies in laboratories, nor by examination of feces, of persons dying of dysentery, have I been able to ascertain that the parasite of bilharziasis was ever found among the many other parasites of different kinds occurring in the cases of dysentery. Therefore, it is very strange that the case referred to by Dr. Castro should have come from Venezuela; and I want to state that bilharziasis, at least, is not common in my country to the extent of constituting danger for the other nations.

DR. CASTRO requested the floor to answer Dr. Acosta, but

THE PRESIDENT called the attention of the Delegate to the fact that the subject was not under discussion, and stated that Dr. Castro's resolution would be submitted to the Executive Committee, whose report would be discussed in due time. He also stated that he made this remark in order to avoid discussion which might take the time that was necessary for transactions that have to be carried out.

(Discussion was then taken up of the sanitary measures that should be taken against venereal diseases.)

DR. LICÉAGA. In accordance with the 10th clause of the programme, the Mexican Delegation is going to read a paper regarding that matter. (He then read the report referred to.)

THE PRESIDENT. I call the attention of the Delegates to the fact

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that although the provisional programme included the article referred to by Dr. Licéaga, it was left out in the programme of this Conference, because venereal diseases are of a local character, and it is difficult in practice to adopt in the different ports of entry the necessary regulations to prevent their introduction. This was in accordance with the opinion of several of the Delegates.

DR. LICÉAGA. I wish to make an explanation of the reason why the Mexican Delegation presented this paper. No. 10 of the provisional program says: (He then read the clause referred to.)

We received this programme about six or eight months ago, and, naturally, each Delegation, in order to observe conscientiously all the points therein contained, was obliged to present the reports referred to by the said programme. Therefore, I want it known that, whatever be the decision taken in regard to the subject, the Mexican Delegation has fulfilled and observed the letter of the programme, and in accordance therewith presented this report.

THE PRESIDENT. I request all the Delegates present to please vote on these points, whether we shall leave out the discussion of venereal diseases or include it in the program. I thought we were not going to take this matter up and had planned accordingly, but I leave it to the Delegates, and I request that you specify whether or not you desire to include the subject in the program. Those in favor of the motion—

DR. WYMAN. What is the motion?

THE PRESIDENT. That we shall not consider the subject of venereal diseases at this Conference.

DR. LICÉAGA addressed the Conference in Spanish on the subject.

DR. WYMAN. Mr. President, it is true that subject was included in the provisional program, but the program was provisional, and we have a right here, if we so vote, to exclude this from the Transactions. I am very much interested in the report that Dr. Licéaga has made, and I have also in my room at the hotel some comments of the same nature, making a brief report from the United States, but I understood that the scheme was rather that we should not have this subject discussed particularly at this meeting or be inscribed in the proceedings of this Conference. When that was suggested to me I readily acquiesced, because I think the subject is one of such very great importance that we ought to give it at some future Conference very special attention, and I do not believe that any of us are prepared to thoroughly discuss that subject at the present time. It is one of the most important subjects before the people of the world to-day, and I think that before this Conference goes into it we should have ample notice with regard to it and should make very special study in order that we may make reasonable suggestions. It is one of the subjects that is engaging our attention in the United States, and I consider it an unsolved problem how to deal with it, and we need more time to study it out. But it is just as well that the matter has been brought up in this shape at this Conference, for we can prepare to take it up seriously at some future time. I believe it would be unwise to attempt to handle it at this meeting, and when the motion is put I shall vote to defer its consideration.

(The President repeated Surgeon-General Wyman's remarks in the Spanish language.)

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(A vote was taken and it was decided not to consider the subject of venereal disease at this time.)

DR. LICÉAGA. Mr. President, I would like to know as to what this point refers to: "Discussion of the matters related with the Fourth Sanitary Conference."

THE PRESIDENT. To any other matter which may be included in the provisional programme, and which may be considered in this Conference, in accordance with its decisions.

DR. VIAL. I would like to make a request of the Conference. In the Canal Zone of Panama, under the control of the Government of the United States of America, there used to be published monthly a paper containing statistics of all the diseases occurring in the Zone, which publication is of great interest for all the Republics that maintain relations with that region. As this publication has been suspended, undoubtedly by virtue of the department in Washington, I take the liberty to request the President of the Conference that, if he has no objection, he request, in behalf of this assembly, that the said publication be again issued, because, as I have said, that statistical bulletin is really interesting for us.

If all the Delegates here present share in my opinion, I would ask the Chair to make a request to that end.

THE PRESIDENT offered to do so through the Chairman of the International Sanitary Bureau of Washington, Dr. Wyman, if there was no objection to it. Referring to the subject of diseases, he stated that if there was any Delegate who desired to move that it be taken into consideration in the next Conference, or in a subsequent one, he could do so.

DR. LICÉAGA. I am glad to hear the suggestion made by the President, because if there are any diseases, affecting social hygiene, of extraordinary importance, they are those included under the name of venereal diseases. Alcoholism, tuberculosis, and syphilis constitute the three capital plagues of humanity; and if these three subjects ought not to be taken into consideration by this Conference, I do not know to what other subjects a greater importance could be attached.

Therefore, I am of the opinion that the Fifth International Sanitary Conference of the American Republics be asked to take up all subjects that may belong to social hygiene, especially in regard to the venereal-syphilitic diseases. And I make a motion to that end.

THE PRESIDENT. I second, with great pleasure, the motion of the Delegate from Mexico, my esteemed colleague and teacher, Dr. Licéaga. I have always taken a deep interest in matters relating to venereal diseases, and with this respect I will mention a set of regulations on venereal prophylaxis which I prepared when I was a member of the Cabinet of President Iglesias, which regulations were carried out with the best results.

(A vote was taken on the motion, which was carried.)

THE PRESIDENT. We are going to have a session of the Executive Committee, and I desire that the gentlemen who are on that Committee will meet together in the Secretary's office to dispose of the pending matters. The session is adjourned for that purpose.

The Conference then took a recess, at 10.30 A. M., until 2 P. M.

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Afternoon Session.

The Conference was called to order by Dr. Ulloa at 2.40 p. m., the following Delegates being present: Doctors Quiñones, Castro, Amador, Vial, Amesse, Licéaga, Monjarás, Acosta, Vásquez, Soto, Rojas, Toledo, Razetti, Ulloa, von Ezdorf, Roberts, and Porras.

The English minutes for the afternoon session of December 30th were read and approved.

THE PRESIDENT. The Delegate from Chile, Dr. Vial, has the floor for the purpose of reading his report.

DR. VIAL. Before commencing, the Delegate of the Republic of Chile sends his cordial greetings to the Delegates of the sister Republics here represented, and especially to those of the Republic of Costa Rica, who so hospitably have received us.

(He then made a résumé of the report which appears on page 119 of the Appendix.)

THE PRESIDENT. The Delegate from Chile has again the floor for the purpose of presenting the names of three physicians, on the part of Chile, for membership in the International Committee mentioned in the provisional programme.

DR. VIAL. I beg to present, for that purpose, the following names: Dr. Ricardo Dávila Boza, the Director of the Institute of Hygiene; Dr. Lucio Córdoba, Secretary of the Supreme Council of Hygiene; and Dr. Pedro Lautaro Ferrer, Sanitary Inspector of the Republic.

THE PRESIDENT. If the members of the Committees have no report to present, in order to gain time I will open the discussion in regard to the 11th clause.

In regard to this subject, I informed the Conference that the International Sanitary Bureau of Washington had sent a communication to that of Paris, requesting it to take into consideration the recommendation made by the Third Conference of Mexico, but when I left the United States, according to what Dr. Wyman told me, no answer had as yet been received. Do the delegates wish that further action be taken, or do they think it better to wait for the answer?

DR. LICÉAGA. This is a matter of great interest, and if no answer has been received, I think it very advisable that steps be taken, both by the Conference that will take place next year, as well as by the International Bureau of American Republics, to that end.

THE PRESIDENT. I think that in order to save time we should take a vote on the motion of the Delegate from Mexico, without submitting it to the respective committee.

(The vote was taken and the motion carried.)

DR. ROJAS said that in the last session he made a motion to the effect that the Conference appoint a committee charged with the preparation of a pamphlet against malaria, for submission to the next International Conference.

THE PRESIDENT stated that that proposition had been referred to the Executive Committee, which would report upon it. He then said that the Executive Committee was not yet ready to present its report; that there were some matters that had to be studied, and that its report would be ready for submission on the session of Monday. He reminded the Delegates that it was in order in that session to set the

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place in which the Fifth International Sanitary Conference of the American Republics should be held; that in that same session the President of that Conference should be elected, as well as the members of the International Sanitary Bureaus of Washington and Montevideo. He also said that in the closing session one member of the different delegations would make a brief address, to be answered by the President, thus adjourning the Conference.

THE PRESIDENT also stated that, in order to give the committees time for their deliberations, the session was going to be closed, reminding the Delegates before then that at 9 o'clock would take place the ball given by the society of San José in honor of the Conference.

He then asked the Delegates if any one of them wished to take the floor, and reminded them that the official call on the President of the Republic would take place at one o'clock P. M. of the next day.

(The Conference then adjourned, at 3.30 P. M., until Monday, January 3d.)

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SEVENTH DAY—MONDAY, JANUARY 3, 1910.

Morning Session.

The Conference was called to order by Dr. Ulloa at 10 A. M., all the delegates being present.

The Spanish minutes of the morning session of December 31st were read and approved.

The English minutes of the morning session of December 31st were also read and approved.

Then the Spanish and English minutes of the afternoon session of December 31st were likewise read and approved.

THE PRESIDENT. I regret to inform the Conference that Dr. Amador has been compelled to withdraw from the session because he is not feeling well, and has requested the Chair to read the list of the physicians whose appointment he recommends for membership in the International Committee, on the part of Colombia. Those names are the following: Dr. J. M. Lombana Banetti; Dr. Ricardo Amaya Arias; Dr. Juan David Herrera.

At the same time, I have the pleasure to announce to the Conference that we have among us this morning Dr. Victor C. Vaughan, Assistant Professor of the Detroit Medical College; he is the son of Dr. Victor C. Vaughan, Dean, Department of Medicine and Surgery, of the University of Michigan, and member of the Advisory Board of the Hygienic Laboratory. It is with pleasure that we extend to Dr. Vaughan the privileges of the floor.

I now beg to submit the report of the Executive Committee, which is as follows:

Your Executive Committee, after carefully studying the reports presented by the different committees appointed to pass upon the propositions submitted to the consideration of this Conference, begs to make the following recommendations, requesting that in sending them to the respective Governments emphasis be laid on the importance of executing them faithfully and as soon as possible:

I. With respect to bilharziosis, hydrophobia, leprosy, typhus fever, ankylostomiasis, etc., this committee suggests that recommendations be limited to requesting the various governments to take those measures of protection which they believe necessary.

II. (*a*) To recommend especially to the various governments that they employ all possible means at their disposal to secure the effective sanitation of seaports, to the end that the introduction of plague, cholera, and yellow fever may be prevented, and in the event that a case of either of these diseases reaches a port that it be promptly isolated and measures taken to prevent its spread.

(*b*) To recommend special ordinances for the proper construction of rat-proof buildings, especially those designed for the storage of foodstuffs, such as markets, granaries, abattoirs, stables, etc.

(*c*) To make obligatory the use of galvanized-iron garbage cans with tight-fitting covers for the reception of refuse from houses, and to arrange for the daily disposal of such refuse.

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(*d*) That properly equipped laboratories be provided at all seaports where the periodical examination of rats may be made so that plague can be apprehended before its appearance in human beings.

(*e*) That the crusade against the mosquitoes, *stegomyia calopus* and *anopheles*, be carried on vigorously along lines which have been shown to bring the best results.

(The above resolutions were approved without discussion.)

(The following resolution (third), which comprises paragraphs a, b, c, d, and e, was passed in compliance with the second recommendation of the Third International Conference of the American Republics, held in Rio de Janeiro in August, 1906, which reads as follows: "II. The adoption of measures intended to obtain the sanitation of the cities and especially of the ports, as well as to obtain as far as possible a better knowledge and a better observance of hygienic and sanitary principles.")

III. (*a*) That careful statistics on population, morbidity, and mortality be kept at every port, such data to be compiled at regular intervals of not more than one month and also annually.

(*b*) Every port should be provided with a proper system of sewerage, an adequate supply of pure water, and paved streets.

(*c*) That all habitations be constructed with a view to furnishing fresh air and sunlight sufficient to maintain the health and vigor of the inmates, and that the character of the construction shall conform to local conditions.

(*d*) That in every port there shall be a sanitary authority clothed with ample power to vigorously enforce sanitary ordinances.

(*e*) That it be made obligatory in schools to furnish instruction in the elementary principles of hygiene and sanitation. This instruction should be objective, or by means of the publication of simple rules.

(The third resolution being under discussion, the Delegate from Mexico, Dr. Licéaga, said, with respect to paragraph (e), that he thought it advisable that the phrase "or both" should be added at the end of such paragraph, because said recommendation related to what might be made effective, and as it was especially intended for small ports, if objective instruction could not be provided for, it would have to be by means of rules.)

(The addition was made as proposed by Dr. Licéaga, and the third resolution was thus approved.)

IV. (*a*) That it is the duty of owners and masters of vessels to rid their vessels of rats and to use all possible means to keep them free therefrom.

(*b*) That this should be accomplished by the periodical fumigation of holds of vessels with sulphur gas at periods of from three to six months and at times when advantage may be taken of the vessels being free from cargo or laid up for repairs; and at all other times vigilance should be exercised by the masters for the destruction of rats by such other means as they deem most effective.

This resolution was passed.

V. (*a*) That no person be allowed to embark who is suffering from a quarantinable disease, or from scarlet fever, measles, diphtheria, or any other communicable disease.

(*b*) For permitting the embarkation of passengers and crew who have been presumably exposed to infection where the above-mentioned diseases exist there should be observed at the port of embarkation the following requirements:

1. Cholera, five days' observation or surveillance; disinfection of baggage.
2. Smallpox in epidemic form, vaccination or other evidence of immunity.
3. Typhus fever in epidemic form, twelve days' detention or observation; disinfection of baggage.
4. Plague, seven days' detention or surveillance; disinfection of baggage.

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THE PRESIDENT. I think it should be five days.

DR. LICÉAGA. The above resolution which prescribes seven days for observation of plague is inconsistent with the Sanitary Convention of Washington, which establishes five days only, and that Convention is a universal law.

THE PRESIDENT. On my part, I have followed the decision of the respective committee. In this respect all that I have done is to copy.

DR. LICÉAGA. How is it possible that a resolution passed by this Conference should have greater force than a pact approved by the Governments and legislatures of the nations?

THE PRESIDENT. Dr. Licéaga objects to this seven days' observation in the case of bubonic plague, because the Convention of Washington appoints five days for this observation. Shall we change the period?

DR. WYMAN. I do not think, Mr. President, it would be advisable for us to attempt to change the Convention, but if each country should think seven days necessary instead of five, I believe each country would impose seven days under some general clause permitting it; but it would be inadvisable at this Conference to make a change even apparently contrary to the previous agreement which has been made. In case a great danger should threaten any country, safety would be the first consideration. But it would be inadvisable for this Conference to formally abrogate what has been agreed upon between the different Republics.

(The President translated the remarks of Surgeon-General Wyman into Spanish.)

DR. WYMAN. I wish further to say, Mr. President, in explanation of my remarks, while I was on the committee and passed upon the resolution, I do not recall that that matter was brought to our attention at all. It was not discussed in the Executive Committee. I do not know how it escaped us.

THE PRESIDENT. It appears in this report of the Committee on Protective Measures for Passengers, signed by Doctors Duran, Soto, von Ezdorf, Acosta, Toledo and Quiñones.

DR. WYMAN. I see that one of the representatives of the United States was on that committee and knew about it, and I recall now that he told me it was about what we had in our regulations.

THE PRESIDENT. I remember that he submitted it. Of course, I will have it translated into Spanish. I only had the English copy; I did not have the Spanish copy.

DR. WYMAN. I was not aware at the time that there was anything in there that was contrary to the Convention. How would it do to leave the days blank?

THE PRESIDENT. I think that Dr. Licéaga is right, because if it is in the Convention we should put it down as it is in the Convention, five days; that is really the constitutional law for us in this matter. That interpretation of Article IX will leave ample ground for the countries to protect themselves, because it refers to bubonic plague and yellow fever, and that leaves enough latitude there for the countries to protect themselves in case it should be necessary.

DR. WYMAN. If I had considered the matter carefully I think I would have avoided reference to that. It seems that our regulations

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require seven days, and I didn't appreciate that it was more than the agreement. It may be that there is some modifying clause that would not make our regulations inconsistent. I am surprised that our regulations appear to be contrary to the agreement, because I was very particular when that agreement was framed in Washington to see that our own regulations conformed to the agreement and that the agreement conformed to the practices that we had established; and I am surprised to find that there is a difference, and it seems to me that there must be some qualifying clause somewhere which would make a practical correspondence between these regulations of seven days and the period as required by the agreement.

DR. LICÉAGA. I believe it would be better not to mention any period of time and to substitute the following paragraph for the one in question: "That the period of observation which should be fixed for bubonic plague be made again subject of experimental and scientific study."

DR. VON EZDORF. Mr. President, it appears to me that under Article IX reference is made to an infected area regarding plague, cholera and yellow fever. Under Article XX it says: "A ship is considered as suspected on board of which there have been a case or cases of plague or cholera at the time of departure or during the voyage, but no new case within seven days." Now this refers to passengers embarking at ports at which plague prevails, so I do not see that it appears here that five days are held to be the incubative period for the disease or that it should be restricted to exactly five days.

The seven days mentioned in our resolution, therefore, conforms to Article XX of the Convention.

DR. WYMAN. What are we talking about, Mr. President; restrictions upon vessels or those to be imposed upon passengers?

THE PRESIDENT. The passengers.

DR. WYMAN. Well, what does the agreement refer to, vessels or passengers embarking on vessels?

THE PRESIDENT. That says passengers on board vessels.

DR. WYMAN. It is the same thing, then.

THE PRESIDENT. Yes, sir, but they embark—this resolution refers to the protection of passengers on ships that might contain passengers who have been exposed to the diseases mentioned here.

DR. WYMAN. How would it do to recommit that to the committee, to be reported on this afternoon?

THE PRESIDENT. It is only one point, and I do not see why we cannot come to an agreement of some kind about it.

DR. WYMAN. Can't we strike out the clause altogether?

THE PRESIDENT. We must say something about bubonic plague; how are we going to leave that out?

DR. VON EZDORF. I should like to know from Dr. Licéaga where in the Convention it stipulates that five days, or no more than five days, should be looked upon as the period of observation for plague?

DR. LICÉAGA. I think it is in Article IX of the Convention of Washington.

DR. VON EZDORF. Article IX refers to the area of infection. As I called attention to just now, Article XX—if Dr. Licéaga will read

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Article XX in Section III it would appear as though we were recognizing seven days as being the incubation period for that disease.

DR. WYMAN. Mr. President, according to this book (indicating) I do not think that Dr. Licéaga's contention holds good that it declares five days to be the period under Article IX.

I do not see that there is any such declaration. "Article IX. * * * First, that there has been neither a death nor a new case of plague or cholera for five days after isolation, death, or cure of the last plague or cholera case." That is true, but that refers to infected areas and does not establish the period of incubation for the disease, so that I think, as they have got it in there, that it is all right—seven days.

(Surgeon-General Wyman's remarks were translated into Spanish by the President.)

DR. WYMAN. If you will allow me—under Article XX, it says: "A ship is considered as suspected on board of which there have been a case or cases of plague or cholera at the time of departure or during the voyage; but no new case within seven days." So I think that is all right, Mr. President.

THE PRESIDENT. We shall now take a vote upon this point.

(A vote was taken and the section was approved just as it was read.)

THE PRESIDENT. The next paragraph is as follows:

5. Yellow fever, six days' detention or surveillance; or immunity.

THE PRESIDENT. The original said "five days" and I changed it, making it "six" instead. If you so desire, we shall make it "five" again.

(A vote was taken and the paragraph approved as read.)

(c) Thorough cleaning of all portions of the vessel and prompt isolation of all cases of sickness which may occur on board.

(A vote was taken and the paragraph approved.)

VI. Your Executive Committee recommends that Article IX of the Convention of Washington be interpreted as follows:

Article IX. In order that a locality be considered free of contagion, it will be necessary to furnish official proof to the satisfaction of the interested party.

First. That there have been no deaths nor new cases of plague or cholera for five days after the isolation, death, or discharge of the last case of plague or cholera; in the case of yellow fever the period shall be eighteen days, but each Government reserves the right to prolong this period against those countries where the measures for the isolation of cases, the destruction of mosquitoes, and the disinfection of food are not observed.

Second. That all measures of disinfection have been applied, and in treating of plague cases that there have been carried out all measures for the destruction of rats, and in the case of yellow fever that the proper measures have been taken against mosquitoes.

DR. RAZETTI. I believe that in an official document we should not say "bubonic plague." The disease is called "plague," simply, and the word "bubonic" expresses one of its various forms. In our documents we should be very clear as regards names, and, therefore, I am of the opinion that instead of "bubonic plague" it be made to read "plague," only.

DR. WYMAN. Yes, sir; it should be plague without the "bubonic."

THE PRESIDENT. The Convention says "Peste Bubónica."

DR. WYMAN. Does it? Well, that settles it.

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DR. VON EZDORF. In the English copy it says, "plague," without the word "bubonic"; and it says further that if there is any difference between the two versions that the English version shall be accepted.

THE PRESIDENT. I would like to have the opinion of the Delegates upon this question. (It was decided in favor of simply "peste" or "plague.")

(The sixth resolution was passed with this amendment.)

VII. To recommend that the Fifth International Sanitary Convention determine what constitutes immunity from yellow fever.

DR. LICÉAGA. Although it may seem an insignificant point, I insist that the name of "Convention" be given to this meeting instead of "Conference," because some resolutions refer to the next "Convention" and others the next "Conference."

I believe that "Convention" and "Conference" are two things entirely different, and we should not mistake one thing for another.

It seems that the original name was that of "Convention" because these meetings were originated by the Conference of Mexico of 1902, which provided very clearly that they should be called "Conventions."

A Conference is a meeting which discusses political and commercial matters, etc., and a Sanitary Convention deals with health matters.

Therefore, if we do not make this point clear in passing the resolutions it would be impossible to know if they refer to the Conference of Buenos Aires or to the next Sanitary Convention.

THE PRESIDENT. I do not agree with what Dr. Licéaga has just said, because when we say "Sanitary Conference" it is understood that it refers to sanitary matters; other Conferences do not deal with sanitary matters. In changing the word "Conference" we have had in mind that "Conference" means one thing and "Convention" means another.

I am going to read the definition of the two words according to the dictionary.

(The President read the definitions referred to from the Dictionary of the Castilian Language by the Royal Spanish Academy, pages 254 and 265, 13th Edition, Madrid, 1899.)

Therefore, a "Convention" is the result of the discussions that take place in a "Conference"; that is why we call "Convention of Washington" that which we signed in that city in 1905.

"Conference," as the name itself indicates, is what we now do here; we are discussing for the purpose of resolving something, and that which we resolve is part of the Convention we all approve.

Therefore, I am of the opinion that the name of "Conference" be not changed to that of "Convention."

DR. LICÉAGA. I request the Chair that my point of view in this matter be recorded in the proceedings.

THE PRESIDENT. I do not insist that my opinion should prevail. In all the publications I have said "Sanitary Conference"; but I will submit the question to the consideration of the assembly so that it may take a vote thereon.

(A vote was taken on the question as to whether the name of "Sanitary Conference" or "Sanitary Convention" is the proper one, and by a majority of votes it was decided that the name should be "International Sanitary Conference of the American Republics.")

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The reading of the report of the Executive Committee was continued as follows:

VIII. To recommend to the Governments here represented the great importance of distributing, in all possible ways, instructions as to the best measures by which people may protect themselves against malaria and tuberculosis, especially by the publication of rules to control these diseases and by making it obligatory on the part of employers of labor to supply such rules and to require their observance by their employees.

(This resolution was passed without discussion.)

IX. That the countries here represented adopt the models of sanitary documents herewith presented. (See page 110.)

(This resolution was passed without discussion.)

DR. RAZETTI. Mr. President, I wish to know if it is possible to add another resolution?

THE PRESIDENT. If the assembly so decides, I have no objection.

DR. RAZETTI. I am going to read a resolution and let the assembly decide if it should be added to the others which have just been read. It is a thing that could be admitted without discussion as a good measure for some small countries as mine, it being also a good one for the future of public health and the study of infectious diseases. It is as follows:

For the purpose of perfecting in the tropics the knowledge of infectious diseases and of giving medical science the really scientific basis that it has attained in the more advanced countries, the Conference recommends to the Governments of the American Republics that, even though they may not possess those elements of progress, they give their efficient support to all enterprises tending to provide the Republics with true specialists on parasitology and pathological anatomy.

Likewise, it recommends the said Governments to favor in the important ports and cities the creation of laboratories where not only the necessary diagnosis for the compliance with the provisions of sanitary conferences should be made, but also where original investigations may be made of such problems of tropical and general pathology as the sanitary authorities may deem advisable.

The principal object of this proposition that I make in the name of Drs. Castro, Cervantes, and Acosta, and in my own, is that a resolution of this kind passed by our Conference will have a powerful influence on the Governments of the small Republics to encourage the study of such diseases as prevail in our countries, which are of great interest to international health; because by this means we will be enabled to discover many diseases and to know better how to treat them and prevent them, since this study is not sufficiently advanced in all the countries of Latin-America. This, of course, does not refer to the United States of North America, nor to other countries that are provided with all sorts of means, but it does refer to us.

DR. LICÉAGA. I second the motion of the delegations of Nicaragua and Venezuela just presented by Dr. Razetti.

DR. CASTRO. Among the resolutions read by the President there is one relating to the creation of laboratories, etc., and I think that our proposition might fit in exactly that resolution. The mere fact of this proposition having been presented and appearing in the printed proceedings would by itself have a great value in causing the interested Governments to take note of it.

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THE PRESIDENT. Did you understand the motion?

DR. WYMAN. I think that is the same motion the Doctor read me this morning. Of course, that motion, Mr. President, should have been offered before and sent to the Executive Committee to be passed upon, but it struck me, as I read the motion, that it is a very proper one and probably will do a great deal of good, and I have thought that, this being the desire on the part of these gentlemen from this section that we should yield to their wishes in this matter; and I move you, Mr. President, that the rule by which it goes to the Executive Committee be suspended, and that we pass that resolution; or I suppose the motion has already been made to pass it, and I second that motion.

THE PRESIDENT. Yes, the motion has already been made, but your motion is all right to dispense with its going to the Executive Committee. I second your motion.

(The motion was put and carried.)

DR. WYMAN. Mr. President, if there is nothing immediate before you, I would like to inquire whether the resolutions written in English are in the hands of the English Secretary or your own? There were three in particular: one with regard to destruction of rats on vessels; another with regard to the regular sanitation of ports, and the other upon special sanitation of ports with regard to bubonic plague and yellow fever. Have you those resolutions?

THE PRESIDENT. Yes. I propose to have the translation made before you go.

DR. WYMAN. Well, I do not need the translation; I am speaking of resolutions in English that are to be translated into Spanish. I am only anxious that the three resolutions shall be printed in the language in which they were sent in so far as the English is concerned. You would not translate them again from Spanish into English, and use the text of the translation?

THE PRESIDENT. Yes; it is going into the report of the Conference, and I was going to say that I intended to try to let you have the resolutions passed to-day so that you can all inform your Governments when you make your reports. I am going to try to have copies of all the minutes, and I think that we have them now almost, already. My idea is to let each one of the Delegates take a copy of the extract of all the minutes, including those of to-day's sessions, as well as a copy of the resolutions passed in this session, so that they may make a full report thereon upon their arrival at their respective countries, without waiting for the publication of the printed proceedings, the preparation of which will take some time.

DR. QUIÑONES. I move that the resolutions be also published in English in the Spanish edition.

THE PRESIDENT. That would not be practicable or feasible; it would be necessary to change the method of publication. Each Delegate will receive both the Spanish and English editions.

If there is no other matter to be discussed I beg to submit to the consideration of the Conference the following resolution:

X. To recommend to the Governments represented that for future sanitary conferences there be nominated delegates who have assisted at previous conferences; and when the delegations are composed of more than one member, that one of them shall have assisted at a previous conference, or that in any case the delegates shall be sanitary authorities in their respective countries.

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DR. QUIÑONES. I second the motion in every respect.

DR. WYMAN. I think, Mr. President, that resolution should be so worded as not to discourage the sending of Delegates, especially from Republics which had no one who had been at previous Conferences. I would suggest putting in the words "if possible."

DR. LICÉAGA. I believe that the resolution submitted should be voted down, because no Government can be compelled by this assembly to appoint given Delegates. The Delegations can recommend privately to their respective Governments to do such a thing as an advisable one; but that resolution should be voted down so that no Government may believe itself obliged to comply with it.

THE PRESIDENT. It is a recommendation, not an obligation.

DR. LICÉAGA. Even if it were, the Governments would not accept it.

THE PRESIDENT. A vote will be taken on the motion.

DR. CASTRO. It seems to me that the Delegate from Mexico is right, because that recommendation would, to a certain extent, be compulsory to the Governments. Of course, the most advisable thing would be that the same delegates should attend the next Conference, thus facilitating the work. But I believe that we should confine ourselves to merely suggesting to the Governments that it is advisable that they send, at least, a Delegate who has attended a previous Conference, the Governments retaining, however, the freedom of action to which they are entitled.

THE PRESIDENT. No obligation is imposed; we merely recommend the advisability of such action; that is what my resolution says. The Governments can send whoever they choose; but it is very advisable that some one who has attended a previous Conference be sent to a following one, thus avoiding explanations and loss of time, these Conferences being devoted to actual work, and not to academical speeches. For this reason we must cover as much ground as possible within the shortest possible time.

DR. CASTRO. With this explanation, I approve the proposition.

DR. WYMAN. I am inclined to think, Mr. President—I would like to explain my vote—that it might have a deterring effect, and some one Republic might misconstrue the resolution. I do not think it makes very much difference, but I will register my vote as opposed to it.

DR. LICÉAGA. I cast my vote in the negative, and one of my objections is the same as that of the majority of the Delegates. Are we going to ask our Governments to adopt such a resolution? I think that it would be indelicate on our part to do so. I cast my vote in the negative.

THE PRESIDENT. I do not believe this is a matter of delicacy, but a question of scientific advisability. If we were to have Conferences in which all the Delegates were unfamiliar with their proceedings, we would encounter many difficulties and lose a great deal of time without any profit whatever.

DR. VIAL. Objection might be overcome by adding to that resolution the following words: "Or that the said Delegates be hygienists in their respective countries, or competent members of the Health Bureaus."

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THE PRESIDENT. I accept that suggestion, and if the Conference so desires, I will also withdraw my motion, because I do not want to create obstacles, but, on the contrary, overcome them.

DR. RAZETTI. I think that the amendment proposed by Dr. Vial to the motion of the President is a very useful one, and, therefore, I adhere to it.

DR. LICÉAGA. I am going to take the liberty to read the fifth resolution of the Conference of Mexico, which is as follows:

V. The Second International Conference of the American States further recommends, in the interest of the mutual benefit that would be derived therefrom by each of the American Republics, and that they may more readily and effectively co-operate one with the other in all matters appertaining to the subjects mentioned in the above resolutions, that a general convention of representatives of the health organizations of the different American Republics shall be called by the Governing Board of the National Union of the American Republics to meet at Washington, D. C., within one year from the date of the adoption of this resolution by this Conference; that each Government represented in this Conference shall designate one or more Delegates to attend such Convention; that authority shall be conferred by each Government upon its Delegates to enable them to join Delegates from the other Republics in the conclusion of such sanitary agreements and regulations as in the judgment of said Convention may be in the best interests of all the Republics represented therein; that voting in said Convention shall be by Republics; each Republic represented therein to have one vote; that said Convention shall provide for the holding of subsequent Sanitary Conventions at such regular times, and at such places as may be deemed best by the Convention; and that it shall designate a permanent Executive Board of not less than five members, who shall hold office until the next subsequent Convention, at which time the Board shall be appointed with a Chairman to be elected by ballot by the Convention, the said Executive Board to be known as the "International Sanitary Bureau," with permanent headquarters at Washington, D. C.

We see, therefore, that those who attend these Conventions are sanitary agents, and it thus follows that they are persons equipped with a knowledge of hygiene; consequently, it is not necessary to repeat that provision here, this being the basis upon which we exist.

THE PRESIDENT. Experience shows that these things should be repeated, for otherwise they would not be done as they should be.

DR. LICÉAGA. Then, let us say: "It is advisable that the Delegates be health officers with a knowledge of the regulations."

THE PRESIDENT. I beg Dr. Vial to present, in writing, his amendment to my motion.

DR. VIAL presented his amendment in the following manner: "Or that the said Delegates he hygienists in their respective countries."

DR. WYMAN. I suppose, Mr. President, we will have an opportunity to vote on that amendment—a special vote on the amendment. There is a resolution before the house and then this resolution to amend the first resolution.

THE PRESIDENT. So as to not lose too much time I have accepted the amendment and the vote will be upon the resolution as thus amended.

DR. WYMAN. Then I am more strongly opposed than ever to the resolution. I think it is a dangerous thing to attempt to dictate to the Republics what men they should send, and I wish to say further, it is not always necessary that we should have medical men or sanitarians, but sometimes a diplomatic representative—it was thus contemplated

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in the original resolutions passed at the Conference at Mexico, and a diplomat is sometimes quite as valuable in our discussions and in considering matters which come before us as perhaps a sanitarian would be; and, at any rate, I fear that if this is passed, requesting that a member of the board of health be sent—it would not always be easy for a nation to send a member of the board of health, and then they would think we would not receive anyone but a member of the board of health, and they might send no one. If, however, you have accepted the amendment then the vote will come upon the resolution as amended, and I am not in favor of it.

THE PRESIDENT. It is not that a whole delegation should be that way, but in case they have two delegates, and that is as it should be, because every country should send at least two, and in that case—

DR. WYMAN. Yes; but they may be only able to send one.

THE PRESIDENT. But in case they send only one, they should send someone who knows.

DR. WYMAN. Well, I would rather have a stranger than to have no one at all.

THE PRESIDENT. I believe that the Governments could send two Delegates, one of them a physician and the other a diplomat.

DR. WYMAN. I might add, Mr. President, we can effect the same thing in another way. The President of the Conference could pass the word around that it is desired to have men who have been sent before, if possible; but to make a formal declaration in this Conference, I think, might endanger the attendance at the Conferences.

THE PRESIDENT. I suggest a different thing, to wit: That recommendation be made to the Governments in whose country a Conference is going to be held to the effect that the invitations therefor state the advisability of sending Delegates who have attended previous Conferences, or at least one of the Delegates should have that qualification.

DR. LICÉAGA. I think it would be preferable to do away with that proposition entirely; because, since Dr. Ulloa, Dr. Wyman, and other Delegates here present are members of the International Sanitary Bureau of Washington, which sends the invitations through its Chairman, Dr. Wyman, it can make whatever recommendations may be deemed proper, instead of embodying such recommendations in the resolution from this assembly.

THE PRESIDENT. But Dr. Wyman, who is to-day the Chairman of that Bureau, may cease in that capacity. Let us take a vote on my motion with the amendment suggested by Dr. Vial.

(A vote was taken and the motion carried, as amended.)

DR. LICÉAGA. I request that my vote in the negative be recorded in the minutes.

THE PRESIDENT. The next resolution is as follows:

XI. To request of the Bureau of Information of Montevideo to forward a report to the International Sanitary Bureau at Washington of its transactions since the Third International Sanitary Conference.

DR. LICÉAGA. I second the motion.

THE PRESIDENT. There is some doubt as to the functions of the Bureaus of Montevideo and Washington, in regard to which some people have the wrong idea, thinking that these institutions have the same

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duties, and not understanding that the Bureau of Washington is the one of last resort. The Bureau of Montevideo, to which the report from the countries under its jurisdiction should be sent, exists for the purposes of information. Countries lying to the north of Ecuador report to the Bureau of Washington, and those to the south of the same Republic to that of Montevideo. Therefore, the International Central Bureau is that of Washington, which Bureau is also the center of information for the countries under its jurisdiction.

(A vote was taken and the above motion was carried.)

The following resolutions were also adopted:

XII. With the object of perfecting the knowledge of infectious diseases in the Tropics and to give to tropical medicine the scientific basis now held by the most advanced nations, this Conference requests of the Governments of the American Republics that wherever these elements of progress are lacking they encourage every project tending to provide special information on parasitology and on pathological anatomy.

XIII. To request also of the Governments of the American Republics that they favor the establishment in seaports and important cities of laboratories where not only diagnoses may be made in order to comply with the requirements contained in the resolutions of our sanitary conventions, but where also original investigations in tropical medicine and general pathology can be made along lines which the sanitary authorities deem practicable.

THE PRESIDENT. If the Delegates say so, we will now proceed with the election of members of the International Sanitary Bureau of Washington.

(On suggestion of some Delegates, it was decided to take up this matter at the afternoon session.)

THE PRESIDENT. The session is adjourned until 2 o'clock this afternoon, when we will dispose of the pending business and close the Conference.

(It was 12.30 P. M.)

Afternoon Session.

The Conference was called to order by the President, Dr. Ulloa, at 2.30 P. M., all the Delegates being present, with the exception of Drs. Amador and Porras.

THE PRESIDENT. The Spanish minutes for yesterday morning's session cannot be ready because there has not been sufficient time to prepare them. I request the Delegates to authorize the Chair, as is customary, to approve the said minutes definitely. As soon as they are ready I shall see that they are sent to the Delegations present, as well as copies of the minutes of all the other sessions; if it is not possible to do so before the Delegates leave, those copies will be sent them by mail, and those that are ready will be given to them before leaving.

(A note from Dr. Porras was read, excusing himself on account of his trip to the United States. There was also read an invitation from the Polo Club to a match of polo in honor of the Delegates, to take place at nine o'clock the following morning in the Savana.)

THE PRESIDENT. The time at which that match will take place has not yet been definitely set, and the delegates will be informed in due time.

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The Delegate from Colombia, Dr. Amador, has excused himself from attending the session on account of illness.

A subject which we did not discuss this morning, and which it is in order to discuss now, is that relating to the 11th clause of the provisional programme, which is as follows: "Discussion of the necessity that all European nations adopt the Convention of Washington, as well as all the measures recommended by previous Conferences, at least, in so far as they relate to the colonies in America."

The reason why we take up its discussion again is because the Bureau of Washington addressed that of Paris and we do not know as yet what the latter has answered in regard to the subject.

DR. WYMAN. We sent a communication to the Sanitary Bureau at Paris and received a reply stating that they would be very glad to co-operate in every way possible with the International Sanitary Bureau of American Republics at Washington. They are sending out weekly bulletins, which I suppose are being received by all the American Republics. If not, it will be my pleasure to see that they are sent to each Republic. Their own organization has been barely completed, but at the last meeting last summer the United States Government was represented by Dr. Geddings, and the matter of the co-operation between the two international sanitary bureaus was brought up and agreed to in a general way. Nothing specific has been done as yet, but it is expected that in due course of time there will be. In regard to the adoption by the colonial interests of the European Governments of our regulations, of course, that must be a matter that must be brought up at a later time through the International Saniary Bureau if it is practicable, but in the meantime I wish to say that at the convention of the colonial interests of the English Government, which, of course, are very large in the West Indies, they adopted regulations which are practically the same as those adopted by us. So that there is really, so far as the English-speaking colonial authorities are concerned, very little difference, if any, in the management of these three epidemic diseases, very little difference from the manner in which we have agreed to treat them. I think that in the next two years, before the next International Sanitary Convention of American Republics is held, there will be more evidence of hearty co-operation between the European Governments and American Republics in matters of sanitation, brought about by the intervention of the two Bureaus, one at Washington and one at Paris.

THE PRESIDENT. Will you please tell me when you saw that communication from Paris?

DR. WYMAN. Well, it was received during the summer, signed by the proper authority, acknowledging our invitation and agreeing to it. It was only one page, but an acknowledgment.

THE PRESIDENT. Did you say those publications were issued weekly or monthly?

DR. WYMAN. Monthly. And they are published only in the French language.

THE PRESIDENT. In accordance with the programme, it is now in order to proceed with the selection of the place where the Fifth International Sanitary Conference shall be held. The Delegates wishing to

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take the floor for the purpose of making an invitation to that end, in the name of their respective countries, may do so.

DR. VIAL. Messrs. Delegates: It is extremely gratifying to me to offer the city of Santiago, capital of the Republic of Chile, as the place for the next International Sanitary Conference. I have the honor to invite the Conference, in the name of my Government, to that city for such an important purpose.

THE PRESIDENT. Is there any other Delegate who wishes to extend an invitation in the name of his country?

That of Chile being the only invitation, I move that that made by the distinguished representative of the Chilean Government, in its behalf, be accepted unanimously. (The proposition was accepted with great applause.)

THE PRESIDENT. It is now in order to elect the President for the next Conference, and I take the liberty to propose the name of Dr. Maximo Cienfugos, ex-Secretary of State, President of the Supreme Board of Public Hygiene of the Republic of Chile, and Professor of the Faculty of Medicine of Santiago.

(The appointment, as proposed by the President, was made by acclamation.) (Great applause.)

THE PRESIDENT. It is now in order to make the appointment of the members of the International Sanitary Bureau of the American Republics.

DR. LICÉAGA. I beg to remind the Delegates that these appointments should be made by ballot.

THE PRESIDENT. These appointments have always been made openly, but if it be desired that they be made by ballot we shall do so.

DR. LICÉAGA. I am sure that we all cherish the same feeling, and that we all have in mind one single name for Chairman of the International Sanitary Bureau; but I thought that as the President is so strict about following the rules we should not now deviate from them. This, however, does not alter the thought that we all have in mind.

DR. CASTRO. I beg to submit the following names for the membership of the International Sanitary Bureau of Washington during the years 1910 and 1911: Chairman, Surgeon-General Walter Wyman; member and secretary, Dr. Juan J. Ulloa; members, Drs. Eduardo Licéaga, Juan Guiteras, Pablo Acosta, Rhett Goode, and Manuel Camilo Vial.

THE PRESIDENT. Let us first make the election of the Chairman. Is there anybody who wishes to propose another name for the said position aside from that of Dr. Wyman?

We shall, therefore, proceed with the election by ballot, one Delegate casting one vote for each country, and to this end I reserve the right to vote for Costa Rica.

(The result of the ballot was the unanimous election of Dr. Walter Wyman for Chairman of the International Sanitary Bureau.)

DR. WYMAN. Mr. President and gentlemen: I desire to thank you for this continued honor.

The election of the Secretary was then taken up, and the President designated Dr. Carlos Duran, of the Costa-Rican Delegation, to cast the vote for that country.

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DR. LICÉAGA. The other appointments need not be made by ballot, and I move that the appointments suggested by Dr. Castro, excluding my name, be accepted.

(The appointments were, therefore, made as follows: Member and Secretary, Dr. Juan J. Ulloa, of Costa Rica; Members: Drs. Eduardo Licéaga, of Mexico; Juan Guiteras, of Cuba; Pablo Acosta, of Venezuela; Rhett Goode, of the United States, and Manuel Camilo Vial, of Chile.)

THE PRESIDENT. On my part, I thank the Conference most expressively for the honor that it has conferred upon me.

DR. LICÉAGA. I repeat the same, in so far as I am concerned.

DR. ACOSTA. I express my gratitude for the honor that has been extended to me.

THE PRESIDENT. Dr. Licéaga has the floor for the purpose of submitting a motion.

DR. LICÉAGA. Messrs. Delegates: The Mexican Delegation, through the Fourth International Sanitary Conference, held in San José, de Costa Rica, from December 25, 1909, to January 3, 1910, begs to submit the following motion:

1st. That the Convention extend its most expressive thanks to the people and Government of Costa Rica, and especially to the President of the Republic, for the ample hospitality and excellent comforts that they have accorded to the representatives of the nations here assembled.

With respect to this first motion, I suggest that it be communicated to the President of the Republic through a Committee composed of three members, one of which should be the President of this Conference.

(A vote was taken on this motion, which was unanimously carried.)

DR. ACOSTA. I move that that committee be constituted as follows: Dr. Juan J. Ulloa, Surgeon-General Dr. Walter Wyman, and Eduardo Licéaga.

(A vote was taken on this motion, which was unanimously carried.)

DR. LICÉAGA (reading):

2d. That, for the same reason, the thanks of the Conference be extended to the Secretary of Foreign Affairs of Costa Rica and his distinguished consort.

(This motion was carried.)

3d. To the San José society for the kind attention that they have shown us, and most particularly to the ladies of San José.

(This motion was carried.)

4th. To the Legation of Mexico, near the Government of Costa Rica, for the reception that it gave in honor of the Delegates.

(This motion was carried.)

5th. To the Delegation of Costa Rica, which so cordially has accompanied the Delegates, acting as their guide in visits to establishments and excursions; and very particularly to our genial President.

DR. WYMAN then spoke in English, stating that all the Delegates were ready to second this motion, which was carried.

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6th. To the Directors of the Lyceum of San José; of the San Juan de Dios; of the Chapui Asylum, and of the penitentiary.

(This motion was carried.)

To the International Club; to the United Fruit Company; and to Tournon and Company.

(This motion was carried.)

As I suggested previously, the Mexican delegation requests also that the committee of three members, just appointed, make a special call on the President of the Republic for the purpose of signifying to him the sincere recognition of the Conference.

THE PRESIDENT. For the purpose of carrying out the mission which has just been intrusted to me, I request that my distinguished fellow-members in that committee accompany me to-night at half-past eight, if that time be suitable to them.

I request the Conference to authorize the Chair to finish all the business that may be left pending and which may not possibly be disposed of by the Conference before the closing of the final session.

(This proposition was approved.)

THE PRESIDENT. It is now in order, in accordance with the programme, that the different delegations, through one of their members, deliver brief remarks or farewells before the closing of the Conference.

The Delegate from Chile has the floor.

DR. VIAL. Gentlemen, if hygiene has for its object the prevention of diseases it is unquestionable that this Conference has a transcendental importance.

The ancient peoples have left us monuments of their worship to Hygeia, the Goddess of Health, and in all the civilized countries they make all sorts of sacrifices to ameliorate the ravages of diseases, and it behooves us to give form to those ideas.

The fruitful results of these Conferences have soon manifested themselves, and the sanitary condition of the Americas has been considerably improved by them.

Our Government thinks so and has endeavored to follow those same ideas.

The Government of Chile, which nowadays spends big sums of money in the sanitation of its cities, gives preferential attention to its public health and to the Maritime sanitation of the country, and always cares for the welfare of its citizens, and has participated in the four Sanitary Conferences that the American Republics initiated in Washington in 1905.

Therefore, it will be an extreme pleasure for my Government to assemble the next Conference in its capital, which will afford us the opportunity to reciprocate, even though partially, the exquisite attentions that our Delegations have received in Washington, Mexico, and San José of Costa Rica.

Consequently, I will not say "Good-bye" to the distinguished Delegates from the sister Republics here represented, but "Au revoir."

Before closing my remarks, I wish to express my gratitude to the President of the Republic of Costa Rica, his Ministers of State, the

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distinguished society of Costa Rica, and the delegation of the same country, whose attention have deeply obliged us. (Applause.)

DR. RAZETTI. The Delegate from Colombia, Dr. Amador, who is ill, has requested us to read his remarks, which are as follows:

Mr. President; Messrs. Delegates: In the name of the Government of Colombia I beg to present to the Government of this beautiful and progressive country the expression of my highest gratitude for the hospitable and regal way in which this country has received us and entertained us.

Before taking leave of my illustrious colleagues, who have not omitted any effort to secure for the American Republics the greatest benefits to-day offered by hygiene, I wish to pay a special tribute of admiration to our distinguished President for the devotion that he has constantly shown to everything related to the success of this Conference, even in its minutest details.

The Government of this country, during the present and past administrations, is also worthy of our cordial congratulations for the maintenance of peace during almost half a century, and for the constant development of its national wealth, which it invests in everything that tends to place the country among the most civilized nations. This Government should likewise be congratulated for the enthusiasm with which it has attended to its hygiene.

I, who have had the privilege of residing in this beautiful country even though for a short while, can appreciate the great progress that it has achieved during the last seventeen years. From the moment one arrives at Limon one sees to-day straight and well macadamized streets, beautiful parks, roomy and comfortable houses, and a good sewerage system.

The heart of every Latin-American should feel proud of the good nature and peaceful progress of this industrious country, where we have all noticed the extreme refinement of the gentlemen and the beauty and elegance of the ladies.

My esteemed colleagues, upon leaving you my only regret is that I have not cooperated with you as I would have liked, thus making myself worthy of the honor that the Government of Colombia bestowed upon me when it afforded me an opportunity to a seat among you, and especially among those whom by their constant labor we may consider as Titans of this assembly.

I wish you all sorts of happiness in the future, and I hope that when you reach your homes you may find the rest that you so much deserve. (Applause.)

DR. ROBERTS. Mr. President, Ladies and Gentlemen: The mission that brought us to this prosperous region of America having been accomplished, and on the eve of our return to our homes, it would be ungrateful if we were to leave this land—a model of hospitality—without expressing our appreciation.

The Fourth International Sanitary Conference of American Republics has ended its labors; the task that we have taken upon our shoulders is a gigantic one, and, like all enterprises of this kind, we cannot expect that its results should materialize immediately, but we have advanced a great deal; our task is based on the welfare of our fellow beings, it is well founded, and, therefore, its results, although slow in their realization, shall attain the end that we pursue.

You may rest assured that when we leave Costa Rica, where we have received so many attentions, we take with us pleasant impressions of its beauty and hospitality, and the most pleasant recollection, at the same time wishing its people the greatest prosperity and happiness. (Applause.)

DR. QUIÑONES. Mr. President, Ladies and Gentlemen: I regret sincerely that I have to leave my colleagues and this country that has entertained us so splendidly and properly; but the moment has come, and upon expressing my deep gratitude for the attentions that the Government, the society, and the public of Costa Rica have extended to us, I also express my sincere hope that this country, with which

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the Salvadorian Government and people maintain so cordial relations, shall continue its onward march toward progress.

I do not doubt that the resolutions adopted by this Conference will have an unquestionable usefulness throughout the nations here represented, as they have been based upon the latest scientific advances that your profound knowledge has indicated, and to which I have not been able to contribute as much as I would have liked. I do cherish the firm conviction that my Government will know how to interpret them faithfully and will give them the approval they are entitled to.

Most sincerely I wish you a happy return to your homes, and I hope you will take with you very pleasant impressions of the most beautiful country of Central America. (Applause.)

DR. WYMAN. Mr. President, Ladies and Fellow Delegates: In speaking words of farewell on behalf of the Delegates from the United States, the principal feeling which we have at this time is regret, regret that this pleasant occasion, that this fine Convention, that this elegant time which has been furnished to us here, is about to come to a close and that we must return to our homes. Of course, it goes without saying that we are desirous of reaching our homes, but we regret very much that our pleasant time here has come to an end, for it will always remain with us in our memories as one of the most pleasant we have ever enjoyed. With regard to our fellow Delegates, we feel that we have made valuable, profitable acquaintances; we feel that we have come closer together; we feel that through the intermediary of this Convention all the American Republics have been brought into closer relations with one another, for through sanitary work it is certain that republics can be brought close together. And we wish particularly to speak of the cordiality, of the welcome, the great hospitality, the great care that has been taken for our comfort and for our pleasure by the representatives of Costa Rica. We are delighted to have been in Costa Rica, to see this beautiful country, and to see this beautiful city, and we shall carry back with us the warmest remembrance of the kindness which has been extended to us. We feel better acquainted with Costa Rica than we were before and we have greatly appreciated the intercourse which we have had with the distinguished men of your country, Mr. President, who have been so cordial in their reception of us, and we have been greatly charmed by the social entertainments, so elegant and elaborate. We feel complimented that we have been taken into your homes and received there, and that we have met socially the people of this city. With regard to the Convention itself, I feel that it has been of equal importance with the others which have been held. The Fourth International Convention I feel has been productive of great good and has justified its being called into existence; it has justified all the sanitary conventions; it has justified the idea of International Sanitary Conventions; and I feel that the serious subjects which we have discussed here and which are expressed in the resolutions which have been passed, will be productive of great good to all the countries in the Western Hemisphere.

So that with these few words, the American Delegates salute you and bid you farewell. (Applause.)

DR. LICÉAGA. Mr. President, Messrs. Delegates: The labor initiated by the previous Conferences is beginning to show its good re-

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sults. This is proven by the interesting reports read by the Delegates from the nations here represented.

The onward march of this country towards the betterment of sanitary conditions that has been carried out already in different cities and ports; the projects that will be carried out to provide them with water and sewer systems; the efforts that have been exerted to stamp out yellow fever and malaria from the extensive tropical regions; the measures which are being carried out everywhere to fight tuberculosis and leprosy, and the spread of vaccination to protect our people from smallpox, show, as I was saying, that the seeds planted are beginning to give fruition.

The resolutions adopted by this Convention will strengthen those recommended by the previous ones, and will again bring to the attention of the Governments the necessity of following the progress of sanitary science for the service of public health.

The Mexican Delegation hopes that the next Convention will be composed of representatives from a greater number of Republics, and that it will have a better opportunity for the solutions of new problems, and that it will continually exert the best efforts for the purpose of harmonizing the interests of public health with those of commerce, navigation, and free intercourse of men.

Gentlemen, the Mexican Delegation is pleased to express its sentiment of gratitude for the cordial welcome that it has received from the people and Government of Costa Rica; for the splendid hospitality that has been extended to it; for the attentions that it has received from the Delegates of other nations; and for the delicate courtesies that have been shown to it by the people of this beautiful and privileged country, by its illustrious, modest, and worthy President, and by the learned and distinguished society of San José, to whom we would not like to say "good-bye" but "Au revoir." (Applause.)

DR. RAZETTI. The Delegation from Venezuela complies with the pleasant duty of expressing its recognition to the illustrious Government and learned society of Costa Rica for the generous hospitality that it has received in this interesting country, where, due to the patriotic spirit of its people, the political problem of modern democracy is solved; peace and order rule in the midst of liberty and justice, and love for work prevails as the only factor for the happiness of all. We hope that the conclusions reached by this Conference will be a source of benefit for the future of the American nations; and that sanitary science, the most beautiful product of modern civilization, shall contribute to strengthen the ties of international confraternity in the Continent, without detriment to the autonomy and the independence of the nations here represented.

The Venezuelan Delegation expresses its sincere wishes for the welfare of the Costa Rican people, for the personal happiness of their worthy President, and of all the Delegates here present and their families, very particularly for that of the most worthy Dr. Ulloa, who has presided over our sessions with so much interest, and who is one of the most powerful pillars of American sanitary science. (Applause.)

DR. TOLEDO. Mr. President, Messrs. Delegates: The time has come for the closing of the Fourth International Sanitary Conference of the American Republics, and upon addressing you, perhaps for the last

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time, I comply with the honorable duty of thanking you in the name of the Government and people of Guatemala, and at the same time I present to you their congratulations and praises for the great work that you are about to realize.

The improvement of public health in the different nations that constitute the American Continent; the manner of preventing the introduction of infectious diseases in their territories; the adoption of measures tending to stop their propagation; the measures that we shall employ to prevent their becoming epidemics; the organization and establishment of boards of public health, and preparation of a sanitary code which, being compulsory for all the nations of the new world, shall guarantee the lives and property of our peoples, are most important points connected with the solution of the difficult problems intrusted to this Conference.

A great deal has been done in this respect by previous Conferences and the sessions about to close to-day, and, although there is yet much to be done, the radiant light of your wise principles shall be an able guide that, breaking the mysteries of Nature, will accomplish for us the realization of that idea.

If in the course of the present deliberations my limited knowledge did not enable me to co-operate with you in this great work as much as I would have liked, you may at least rest assured that when I report to the Government of Guatemala on the resolutions adopted by this learned assembly, they will all be endorsed with my sincerest and unconditional approval, and you may likewise feel sure that that Government will accept them without restrictions or hesitation, and will comply with them just as it has complied with and obeyed the provisions enacted by previous Conferences.

Within a few days many of you shall have returned to your homes, enjoying the satisfaction of having done your duty; and, if upon abandoning this hospitable land you leave forever engraved in our hearts the enlightening splendor of your science, the scintillating light of your genius, and beneficial fruition of your efforts and aims in the interest of humanity, in exchange you shall take with you the eternal gratitude and blessings of the peoples that form the World of Columbus. (Applause.)

DR. VÁSQUEZ. Mr. President, Ladies and Gentlemen: I wish to express my gratitude for the attentions that the Delegate from Honduras has received from the Government of Costa Rica and the distinguished society of San José.

Likewise, I wish to signify to the Delegates of the Conference my appreciation of their kindnesses, and upon taking leave of them, I want them to know that it has been a great honor for me to be among so prominent personages, of whom I shall always have imperishable recollections.

I am not taking leave of the Delegates from Costa Rica, as in this, my second country I have made my home; in this second country of mine, which I love as dearly as my own, I shall live with them, I shall see them often, and often I shall call upon them for advice. (Applause.)

DR. CASTRO. Ladies, Mr. President, Messrs. Delegates: The time has come to end the labors of the Fourth International American Sani-

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tary Conference, and, with sincere regret, we realize now that the time that we had at our disposal, to discuss with due care all the subjects, was short.

Even at this moment we can foresee that the results of this Conference will be most important, and that not only will they be of transcendental importance for our countries, but also for tropical pathology and for humanity in general.

I congratulate myself for the work accomplished by this Conference, and in the name of the Government of the Republic of Nicaragua I offer the most expressive thanks to the President of the Republic of Costa Rica and to his illustrious Government for the splendid hospitality extended to the Delegates of the nations here represented.

To the learned society of San José, which so splendidly and magnificently entertained the distinguished guests, making their sojourn in this beautiful city most pleasant.

To all the authorities and institutions which, by their courtesy and attentions, have contributed to render the stay of the foreign representatives most interesting.

To our genial President, Dr. Juan J. Ulloa, who, with unequalled tact and delicacy, has guided our deliberations. Finally, permit me, gentlemen, to express a vote of gratitude to the most distinguished ladies of our eminent colleagues, who have deigned to bring a ray of their grace and unique beauty into the midst of these deliberations. (Applause.)

THE PRESIDENT. Ladies and gentlemen, following the order established in previous Conferences, it behooves me now to close the sessions of the Fourth International Sanitary Conference of American Republics, saying the words which will adjourn the sessions to which you have given so much importance with your teaching and your experience in matters connected with public health.

One more step have we taken in the path that will lead us in a short time to the point that we pursue, so that once there we may offer to the world the International Sanitary Code of this Continent, which will serve as a guaranty for the safety of the interests of the countries that we represent in this scientific tournament, where no literary beauties are seen, but which results in resolutions and advices whose object is the welfare and happiness of those who follow them.

The three Conferences held during the last six years have already begun to produce benefits of inestimable value in the nations which have legalized the resolutions passed by their official representatives, as is abundantly proven by the victories over yellow fever, bubonic plague, smallpox, tuberculosis, etc. At the First Sanitary Conference of the Republics of America, held in Washington from the 2d to the 4th of December, 1902, resolutions were passed recommending the Governments therein represented to adopt the measures carried out in Havana against yellow fever, based upon the discovery of Dr. Finlay and demonstrated by the American Committee, composed of Dr. Reed, Carroll, Agramonte, and Lazear, which established the bite of the *stegomya* mosquito as the only means for the transmission of the disease.

Messrs. Delegates, at this point, it is fitting that we should all stand up to pay homage to the memory of those martyrs of science,

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Lazear and Carroll, who proved with their lives the truth of the doctrine that they defended. (All the Delegates rose in respect to the memory of Drs. Lazear and Carroll.)

In the Second Sanitary Conference, which on account of very just reasons could not be held in Chile and had to assemble in Washington, we were able to conclude within the brief period of one week the most important discussion that resulted in the Convention of Washington of October 14, 1905, in regard to measures against cholera, plague, and yellow fever, which was approved *ad referendum* by eleven American Republics. That Convention has already been adopted by thirteen of the nations of this Continent, and it is to be hoped that those which have not accepted it yet will do so in the near future, to avoid the difficulties which might come to them when the countries under our Convention shall enforce restrictive measures against those which have not adopted it.

In the Conference held in Mexico from the 2d to 7th of December, 1907, important resolutions were adopted against smallpox, tuberculosis and malaria.

In the Fourth, which we are about to close, we have agreed in recommending to our Governments important measures against plague and malaria; we have interpreted in a more practical manner Article IX of the Convention of Washington; we have prepared resolutions tending to the betterment of cities, and more especially of ports; we have discussed statistical data from the different countries represented in regard to hygiene and sanitation; we have come to an agreement as to the preparation of uniform sanitary documents, and we have succeeded in establishing the difference between International Sanitary Conventions and Conferences, which will greatly facilitate our labors in the next Conference.

To terminate, gentlemen, I thank you for the kind words that you have addressed me, and in the name of Costa Rica I embrace you and I wish all sorts of happiness for you, for your families, and for the countries that you represent.

I hope that we will have the pleasure of meeting again, inside of two years, when we shall assemble to discuss hygiene and sanitation around the sources of wisdom of Chile, honor and glory of Latin-America. Au revoir, my colleagues. (Applause.)

Messrs. Delegates, all standing, we close the sessions of the Fourth International Sanitary Conference.

(It was 4 P. M.)

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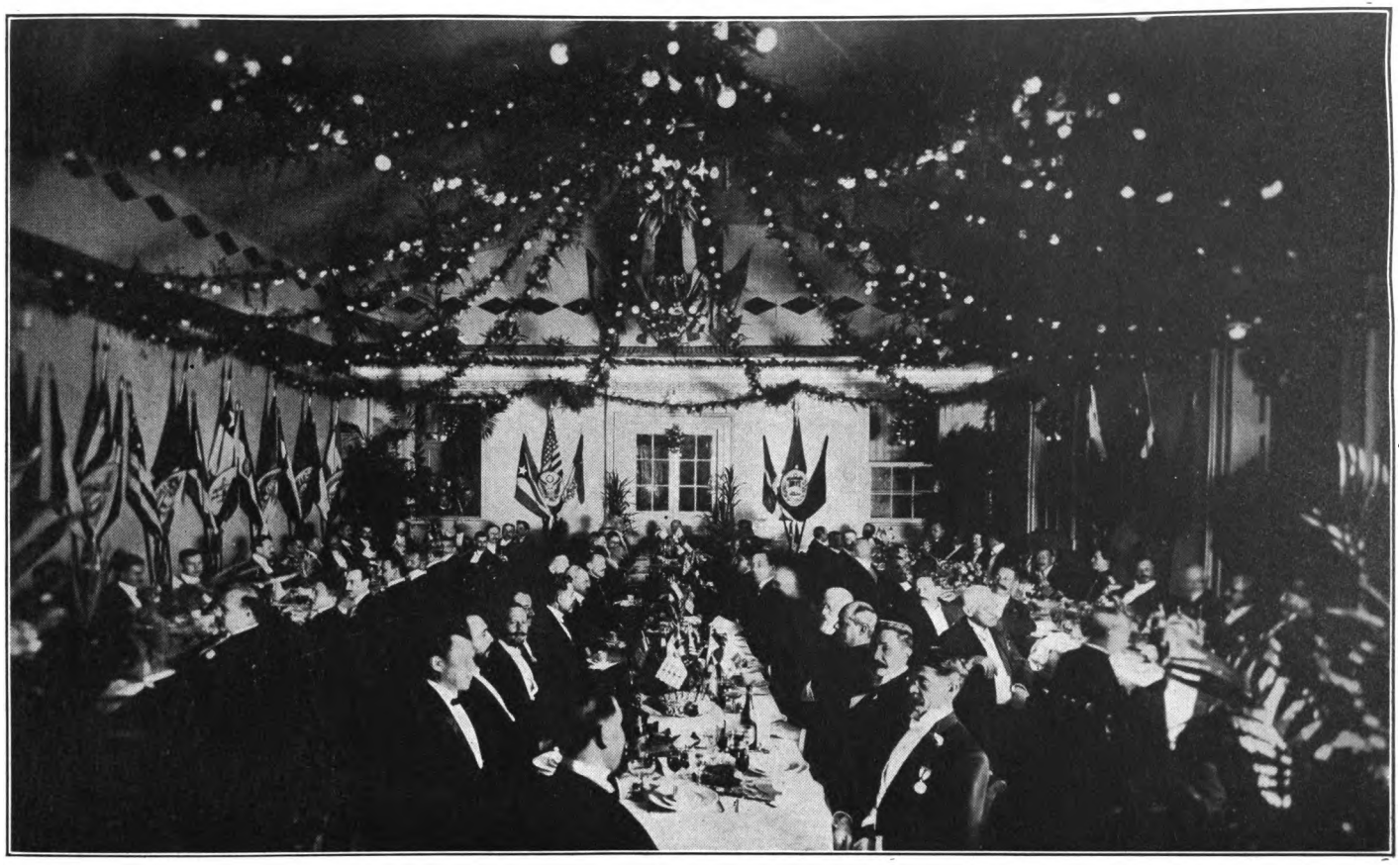

BANQUET GIVEN IN HONOR OF THE DELEGATES TO THE FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS AT THE OFFICIAL RESIDENCE OF THE PRESIDENT OF COSTA RICA, SR. CLETO GONZALEZ VIQUEZ, IN SAN JOSÉ, DECEMBER 31, 1909.

The banquet was served in the inner patio of the Mansion, which had been decorated with international colors and draperies especially for the occasion. The festoons of flowers were particularly beautiful. About 150 guests, including the chief officials and distinguished men of the Republic, were present.

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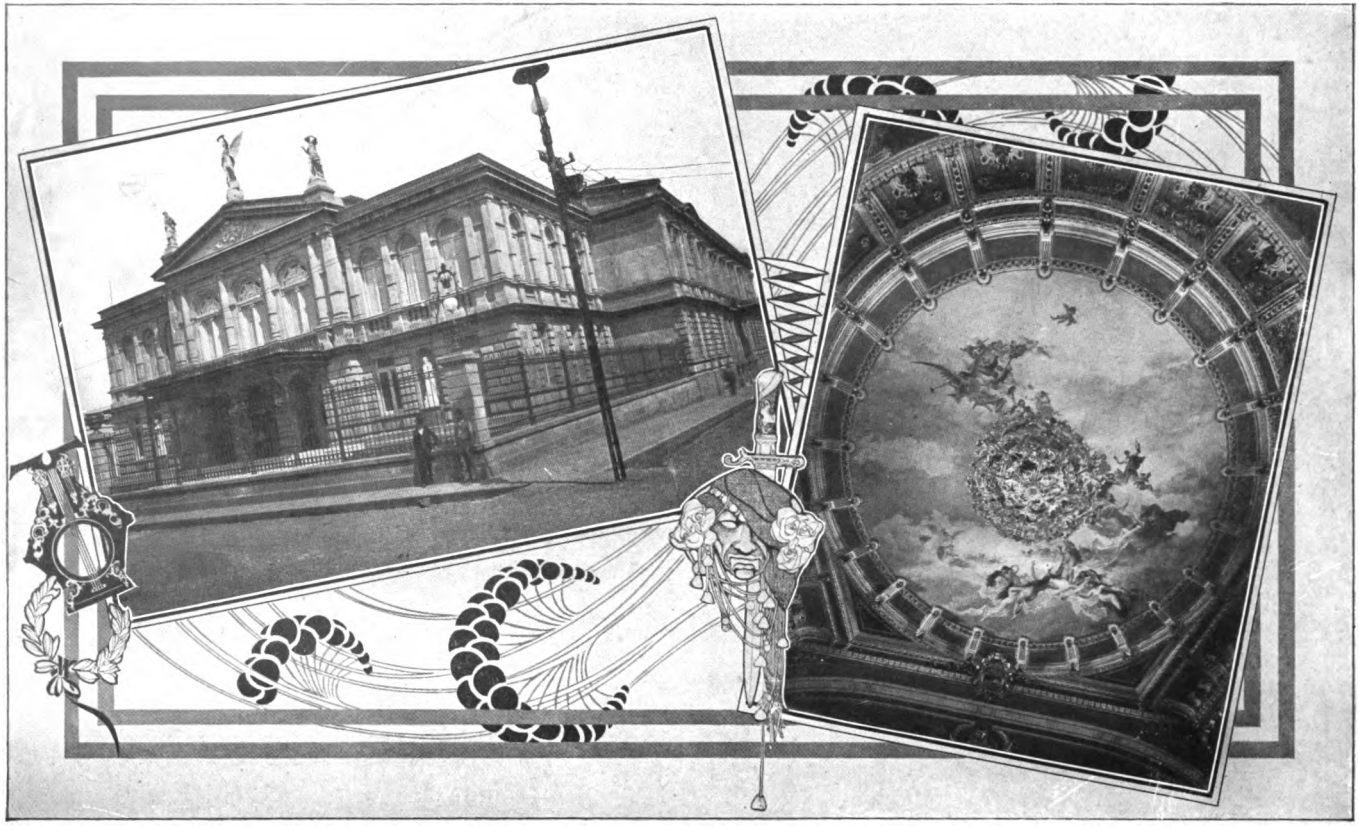

NATIONAL THEATER, SAN JOSÉ, COSTA RICA, WHERE THE INAUGURAL SESSION OF THE FOURTH INTERNATIONAL SANITARY CONFERENCE WAS HELD.

This beautiful theater, one of the finest in the world, was erected from the proceeds of a tax on coffee at a cost of more than $1,000,000 gold. The edifice is of stone, trimmed with the finest Italian marble and stucco. The mosaic work was done by European artists especially employed for that purpose. The ceiling shown in the picture was the work of a famous Italian artist.

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APPENDIX.

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FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

FESTIVITIES AND SOCIAL FUNCTIONS IN HONOR OF THE DELEGATES.

The hospitality and courtesies tendered the Delegates by the Government of Costa Rica and the residents of the capital were, indeed, of the most remarkable character. The brief account given below will only give a small idea of their splendor.

At the very outset they were surprised and delighted by the arrangements made in advance for their comfort and welfare. As the hotel accommodations of the city of San José are limited, the Government set aside a large modern structure perfectly suited to the purpose, for the temporary home of the nation's guests, for such the delegates became. This building, near the main plaza and the cathedral, was called the *Hotel del los Diputados,* and this became the rendezvous for all the social life of the meeting; in it everything was at our disposal, and the house staff had no other duty than to help us enjoy ourselves. No expense was spared by the Government to meet this end, and no expense was permitted the delegates from their own purses if it came within the legitimate requirements of the work. A special postal and telephone service was established, carriages were at our disposal, and even writing paper engraved with the name of the Conference was freely supplied. Naturally, a vote of thanks from the delegates was unanimously expressed for this courteous and liberal hospitality.

The delegates, once settled in their quarters, were invited by the nation or by individuals to almost innumerable festivities. In the beginning there was a visit to the office of the Minister of Foreign Affairs. On Christmas Day, besides the formal inaugural session presided over by the President of the Republic in person, the delegates attended, by invitation of the Government, a gala performance given by a Spanish dramatic company in the National Theater. Then there were drives to the several hospitals of the city, to the schools, and other national and municipal institutions; receptions by the President in his official residence; dinners, receptions and dances by the Minister of Foreign Affairs, the United States Minister, and the members of the Mexican Legation, at many of which society of both sexes attended and showed that charm and graciousness of manner which is so fascinating in the Latin character. So many of the Costaricenses have been educated abroad that even those delegates who spoke little Spanish found no difficulty in enjoying themselves in this polyglot company, while those who danced discovered that the young ladies were perfectly familiar with the waltz and two-step as danced in the ball rooms of New York and Washington.

The three occasions which will always be remembered by those who had the good fortune to be delegates were the evening reception given by the Minister of Foreign Relations and Señora Guardia, the official dinner given by the President of the Republic, and the annual New Year's Eve ball in the National Theater given by society as a whole, this year in honor of the Sanitary Conference. At the reception a glimpse was obtained of the quieter social life of the capital, where young and old alike amused themselves by conversation or dancing, as happened to please. The presidential dinner was more formal, and there were no ladies; it was only a dinner where excellent opportunity was afforded for strangers and natives to become acquainted with each other, but it was a most delightful affair, fully equal to anything that could be served in larger and more cosmopolitan capitals. There were only two toasts, one by the President with sincere compliments to his guests and wishes for successful results from the Conference, the other by Doctor Ulloa, president of the Conference, expressing the thanks of the delegates and their appreciation of the cordial reception extended by the Republic.

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The ball, however, was the climax of the social functions. The National Theater was decorated in gay colors for the occasion, the aristocracy of Costa Rica spared no pains to make the delegates feel at home, and at the stroke of midnight the health for the new year was drunk, with a hearty handshake as if among old friends. Even for one unacquainted and therefore compelled to stand outside of the gayety and look on, the sight was truly fascinating. Not even in Paris or London or Washington could one see a more dazzling array of beautiful women more beautifully dressed; the boxes were full of spectators, the floor crowded with dancers; the music was such as only a trained orchestra can give. Occasions of this kind, where guests and hosts alike mingle in one common and spontaneous feeling of enjoyment, will always aid incalculably to the strengthening of the ties of Pan-Americanism.

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RESOLUTIONS ADOPTED BY THE FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

I. With respect to bilharziosis, hydrophobia, leprosy, typhus fever, ankylostomiasis, etc., this Conference suggests that recommendations be limited to requesting the various governments to take those measures of protection which they believe necessary.

II. (a) To recommend especially to the various governments that they employ all possible means at their disposal to secure the effective sanitation of seaports, to the end that the introduction of plague, cholera, and yellow fever may be prevented, and in the event that a case of either of these diseases reaches a port that it be promptly isolated and measures taken to prevent its spread.

(b) To recommend special ordinances for the proper construction of rat-proof buildings, especially those designed for the storage of foodstuffs, such as markets, granaries, abattoirs, stables, etc.

(c) To make obligatory the use of galvanized iron garbage cans with tight-fitting covers for the reception of refuse from houses, and to arrange for the daily disposal of such refuse.

(d) That properly equipped laboratories be provided at all seaports where the periodical examination of rats may be made so that plague can be apprehended before its appearance in human beings.

(e) That the crusade against the mosquitoes, *"Stegomya calopus"* and *"Anopheles,"* be carried on vigorously along lines which have been shown to bring the best results.

III. (a) That careful statistics on population, morbidity, and mortality be kept at every port, such data to be compiled at regular intervals of not more than one month, and also annually.

(b) Every port should be provided with a proper system of sewerage, an adequate supply of pure water, and paved streets.

(c) That all habitations be constructed with a view to furnishing fresh air and sunlight sufficient to maintain the health and vigor of the inmates, and that the character of the construction shall conform to local conditions.

(d) That in every port there shall be a sanitary authority clothed with ample power to vigorously enforce sanitary ordinances.

(e) That it be made obligatory in schools to furnish instruction in the elementary principles of hygiene and sanitation. This instruction should be objective, or by means of the publication of simple rules, or both.

IV. (a) That it is the duty of owners and masters of vessels to rid their vessels of rats and to use all possible means to keep them free therefrom.

(b) That this should be accomplished by the periodical fumigation of holds of vessels with sulphur gas at periods of from three to six months and at times when advantage may be taken of the vessels being free from cargo or laid up for repairs; and at all other times vigilance should be exercised by the masters for the destruction of rats by such other means as they deem most effective.

V. (a) That no person be allowed to embark who is suffering from a quarantinable disease, or from scarlet fever, measles, diphtheria, or any other communicable disease.

(b) For permitting the embarkation of passengers and crew who have been presumably exposed to infection where the above-mentioned diseases exist there should be observed at the port of embarkation the following requirements:

1. Cholera, five days' observation or surveillance; disinfection of baggage.
2. Smallpox in epidemic form, vaccination or other evidence of immunity.
3. Tyhpus fever in epidemic form, twelve days' detention or observation; disinfection of baggage.
4. Plague, seven days' detention or surveillance; disinfection of baggage.
5. Yellow fever, six days' detention or surveillance; or immunity.

(c) Thorough cleaning of all portions of the vessel and prompt isolation of all cases of sickness which may occur on board.

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VI. The Fourth International Conference of the American Republics recommends that Article IX of the convention of Washington be interpreted as follows:

Article IX. In order that a locality be considered free of contagion, it will be necessary to furnish official proof to the satisfaction of the interested party.

First. That there have been no deaths nor new cases of plague or cholera for five days after the isolation, death, or discharge of the last case of plague or cholera; in the case of yellow fever the period shall be eighteen days, but each Government reserves the right to prolong this period against those countries where the measures for the isolation of cases, the destruction of mosquitoes, and the disinfection of foci are not observed.

Second. That all measures of disinfection have been applied, and in treating of plague cases that there have been carried out all measures for the destruction of rats, and in the case of yellow fever that the proper measures have been taken against mosquitoes.

VII. To recommend that the Fifth International Sanitary Convention determine what constitutes immunity from yellow fever.

VIII. To recommend to the Governments here represented the great importance of distributing, in all possible ways, instructions as to the best measures by which people may protect themselves against malaria and tuberculosis, especially by the publication of rules to control these diseases and by making it obligatory on the part of employers of labor to supply such rules and to require their observance by their employees.

IX. That the countries here represented adopt the models of sanitary documents herewith presented. (See page 110.)

X. To recommend to the Governments represented that for future sanitary conferences there be nominated delegates who have assisted at previous conferences; and when the delegations are composed of more than one member, that one of them shall have assisted at a previous conference, or that in any case the delegates shall be sanitary authorities in their respective countries.

XI. To request of the Bureau of Information of Montevideo to forward a report to the International Sanitary Bureau at Washington of its transactions since the Third International Sanitary Conference.

XII. With the object of perfecting the knowledge of infectious diseases in the tropics and to give to tropical medicine the scientific basis now held by the most advanced nations, this conference requests of the Governments of the American Republics that wherever these elements of progress are lacking they encourage every project tending to provide special information on parasitology and on pathological anatomy.

XIII. To request also of the Governments of the American Republics that they favor the establishment in seaports and important cities of laboratories where not only diagnoses may be made in order to comply with the requirements contained in the resolutions of our sanitary conventions, but where also original investigations in tropical medicine and general pathology can be made along lines which the sanitary authorities deem practicable.

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REPORTS SUBMITTED BY THE DIFFERENT COMMITTEES.

REPORT OF THE COMMITTEE ON CREDENTIALS.

(This report appears on page 79 *et seq.*)

REPORT OF THE EXECUTIVE COMMITTEE.

(This report appears on page 32.)

REPORT OF THE COMMITTEE ON SANITATION OF PORTS AND CITIES.

The Committee appointed by the International Sanitary Convention of American Republics, at San José, Costa Rica, December, 1909, to consider the resolutions adopted by the Third International Conference of American States at Rio Janeiro in August, 1906, beg leave to submit the following report:

The aforesaid resolutions adopted at Rio Janeiro require of the Sanitary Convention a study of the following: "The adoption of measures intended to obtain the sanitation of the cities and especially of the ports, as well as to obtain as far as possible a better knowledge and a better observance of hygienic and sanitary principles and practical means for giving effect" to the recommendations made.

The committee recommends that the following principles be transmitted to the Fourth International Conference of American States to be held in Buenos Ayres in May, 1910.

The measures to be adopted are as follows:

1. *Vital Statistics.* Every port should have statistics as to population, and an accurate record of morbidity and mortality compiled at regular intervals not greater than one month, and also annually.
2. *Sanitary Conditions.* Each port should be provided with proper sewerage, pure and ample water supply, and pavement of streets.
3. *Dwellings.* All habitations should be so constructed as to provide air and sunlight sufficient to maintain the health and vigor of the inmates, whatever the character of the structure due to local conditions.
4. *Administration.* Each port should be provided with a sanitary authority with full power to enforce sanitary regulations.
5. *Educational.* The teaching of the elementary principles of hygiene and sanitation in the schools should be obligatory. This instruction should be either objective or by the publication of simple rules, or by both.

We have further to recommend that the foregoing measures be adopted in all ports, and particularly recommend that they be adopted in the smaller ports.

DRAFT OF RESOLUTIONS.

Whereas, Quarantine regulations, though administered with the greatest care and intelligence, give but a relative degree of safety in the prophylaxis of communicable diseases; and,

Whereas, In view of these limitations, it is essential that we strengthen our second line of defense and render our seaports comparatively impregnable to the invasion of epidemic diseases;

Resolved, That the Convention, through its members individually and through every avenue open to its influence, use all proper means to secure efficient sanitation of seaports, to the end that infections such as bubonic plague, cholera and yellow fever may not spread, if introduced;

Resolved, That specific ordinances be recommended:

(a) For outlining the construction of rat-proof buildings, especially those used for the storage of food-stuffs, such as granaries, elevators, markets, abattoirs, barns, stables and warehouses.

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(b) That garbage cans of galvanized iron, with tightly fitting covers, be provided for all occupied dwellings and arrangements made for the safe disposal daily of garbage.

Resolved, That the crusade against the mosquito *Stegomya Calopus* continue along the lines shown to be productive of the best results, and that it be carried on coincidently with the campaign against *Anopheles.*

WALTER WYMAN, *Chairman.*
J. E. MONJARAS.
R. H. VON EZDORF.
L. RAZETTI.
J. M. SOTO ALFARO.

REPORT OF THE COMMITTEE ON MALARIA AND YELLOW FEVER.

Your Committee on Malaria and Yellow Fever has studied the propositions submitted by the Mexican Delegation relative to the interpretation that should be given to Article IX of the Convention of Washington, signed on October 14, 1905.

Your Committee, taking into consideration that the Article referred to has for object to cause the least possible detriment to the interests of the country against which another takes measures of protection from yellow fever, believes that the said Article, in saying "in the case of yellow fever the period shall be eighteen days, that each Government may reserve the right to extend this period, it should be understood that right is to be made use of against countries that do not enforce measures of isolation of patients in order to protect them from bites of infected mosquitoes, or countries which do not take measures for the destruction of mosquitoes; it should be understood that such rights shall not be availed of in the case of the United States, Mexico, Cuba, Costa Rica and such other nations as are actively and successfully working to secure the eradication of yellow fever from their respective territories; therefore, this committee submits to the consideration of the Convention the following resolution:

"Article IX of the Convention of Washington should be interpreted as follows:

"Article IX. In order that a locality be considered free of contagion, it will be necessary to furnish official proof to the satisfaction of the interested party."

Your Committee on Malaria and Yellow Fever has likewise studied the proposition of the delegate from Cuba (see page 113) to the effect of defining when an individual may be considered as immune against yellow fever.

Your Committee, considering that the proposed question is already defined by science, since only persons who have already suffered from yellow fever are considered immune, the proposition of the delegate from Cuba may be held as scientifically solved, but as the practical difficulty lies in the manner of ascertaining when such persons were attacked by yellow fever, your committee begs to submit the following resolution:

The practical solution of the propositions submitted by the delegate from Cuba are referred to the consideration of the Fifth International Sanitary Conference of the American Republics.

Your Committee on Yellow Fever and Malaria has studied the propositions submitted by Doctor Elias Rojas, delegate from Costa Rica (see page —), and, considering that they tend to impress upon the minds of the people the doctrine of the transmission of malaria and of the proper means of protection therefrom, your committee proposes the following resolution:

To recommend to the Governments represented in this Conference that the propositions submitted by Doctor Rojas be seriously taken into consideration.

Your Committee on Yellow Fever and Malaria has studied the propositions submitted by Doctor Carlos Duran, Delegate from Costa Rica, relating to recommendations that should be made to respective Governments upon the advisability of enacting laws enforcing the measures adopted by the previous conventions for the permanent eradication of malaria in tropical countries. As the propositions of Doctor Duran tend to secure the practicability of the

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measures advocated by the previous Conventions, your committee begs to submit the following resolutions:

The propositions submitted by Doctor Duran should be added to the resolutions adopted by previous Conventions.

EDUARDO LICÉAGA, *Chairman.*
HUGO ROBERTS.
CARLOS DURÁN.
ELIAS ROJAS.
J. W. AMESSE.
FERNANDO VÁSQUEZ.

DISSENTING VOTE OF DR. HUGO ROBERTS.

Messrs. Delegates: I have voted against the new interpretation of Article IX of the Convention of Washington because according to the present construction the Governments are authorized to extend the period, without giving official explanations of any sort, while according to the proposed interpretation in order to extend that period it would be necessary to make an accusation of non-compliance, which might give rise to an exchange of diplomatic notes, perhaps to no avail, and such a course would always be disagreeable. Also, because experience in Cuba has proven that, despite all possible efforts and all necessary measures, cases occur sometimes within periods much longer than eighteen days, which shows that the epidemic was not eradicated in that period.

REPORT OF THE COMMITTEE ON MEASURES FOR PROTECTION OF PASSENGERS.

The undersigned, members of the committee on measures for the protection of passengers of the Fourth International Sanitary Conference of the American Republics, have established the propositions presented by the Delegation of the United States of America on measures for the protection of passengers embarking in infected ports, and, taking into consideration the remarks of Doctor Von Ezdorf, we are of the opinion that the following resolutions be recommended:

First. That no person be allowed to embark who is suffering from a quarantinable disease, or from scarlet fever, measles, diphtheria, or any other communicable disease.

Second. For permitting the embarkment of passengers and crew who have been presumably exposed to infection where the above-mentioned diseases exist there should be observed at the port of embarkment the following requirements:

(a) Cholera, five days' observation for surveillance; disinfection of baggage.
(b) Smallpox in epidemic form, vaccination or other evidence of immunity.
(c) Typhus fever in epidemic form, twelve days' detention or observation; disinfection of baggage.
(d) Plague, seven days' detention or surveillance; disinfection of baggage.
(e) Yellow fever, six days' detention or surveillance, or immunity.

By complying with these measures and thorough cleaning of all portions of the vessels, and prompt isolation of all cases of sickness which may occur on board, the stringency of quarantine measures at the port of arrival will be greatly diminished.

Your committee opines that the observation of the above-mentioned measures be recommended, and that every Government be requested to report to the next Conference the manner in which said measures have been carried out.

CARLOS DURÁN, *Chairman.*
R. H. VON EZDORF.
JOSÉ MARIA SOTO A.
PABLO ACOSTA ORTIZ.
NAZARIO TOLEDO.
ALFONSO QUIÑONES.

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REPORT OF THE COMMITTEE ON SANITARY DOCUMENTS.

Your committee has studied the models for Bills of Health that were submitted to it, and, considering that the one accepted by the committee contains the greatest number of data needed by the sanitary authorities at the port of arrival, it recommends its adoption.

This document is composed of two models, to wit: one is the original Bill of Health issued at the port of clearance, and the other, supplementary to the former, to be issued in the port where the vessel stops in transit.

In view of the consideration above set forth, your committee proposes the following resolution:

That the countries here represented adopt the models of sanitary documents herewith presented.

HUGO ROBERTS, *Chairman.*
EDUARDO LICÉAGA.
J. W. AMESSE.
MARTIN AMADOR.
LUÍS RAZETTI.

(Name of country.)

Port of.....

No.....

BILL OF HEALTH.

I, ...
(the person authorized to issue the bill), at the Port of.....
do hereby state that the vessel hereinafter named clears from this Port under the following circumstances:

Name of vessel, ...; Nationality,.....; Rig, ...; Master,.....; Tonnage, gross,.....; net,.....; Iron or wood,.....; Number of compartments for cargo,.....; For steerage passengers,.....; For crew, ...; Name of Medical Officer, ...

Number of officers.....; Number of members of officers' families,.....; Number of crew, including petty officers,.....; Number of passengers, cabin, ...; Number of passengers, steerage,.....; Number of persons on board, all told,.....

Port of departure, ...

Where last from, ...

Number of cases of sickness, and character of same, during last voyage,.....

Number of cases of sickness, and character of same, while vessel was in this port, ...

Vessel engaged in.....trade, and plies between.....and.....

Sanitary condition of vessel, ...

Nature, sanitary history, and condition of cargo,.....

Source and wholesomeness of water supply, ...

Source and wholesomeness of food supply, ...

Sanitary history and health of officers and crew,.....

Sanitary history and health of passengers, cabin, ...

Sanitary history and health of passengers, steerage, ...

Sanitary history and condition of their effects, ...

Prevailing diseases at port and vicinity,.....; malaria.....; deaths past calendar month.....

Location of vessel while discharging and loading—open bay, or wharf?.....

Duration of stay in this port.....

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NUMBER OF CASES AND DEATHS FROM THE FOLLOWING-NAMED DISEASES DURING THE PAST TWO WEEKS:

Diseases.	No. Cases.	No. Deaths.	REMARKS. Any conditions affecting the public health existing in the port of departure or vicinity to be here stated. When there are no cases or deaths, entry to that effect must be made.
Yellow Fever			
Asiatic Cholera			
Cholera Nostras, or Cholerine			
Smallpox			
Typhus Fever			
Plague			
Leprosy			

I certify that the vessel has complied with the quarantine rules and regulations made under the law of....., and that the vessel leaves this Port bound.....for..... (name of Port and country), via.....

Given under my hand and seal this.....day of....., 191..

(SEAL) (Signature of consular officer).....

(SEAL) .....

(Name of Country.)

SUPPLEMENTAL BILL OF HEALTH.

Port of.....

Vessel .....

Bound from .....*to*....., *U. S. A.*

Sanitary condition of port .....

State infection diseases prevailing at port and in surrounding country.....

.....; *malaria—deaths during past calendar month*.....

Location of vessel while discharging and loading—open bay or wharf.....

Number of cases and deaths from the following-named diseases during the past two weeks:

Diseases.	No Cases.*	No Deaths.*	REMARKS. (Any condition affecting the public health existing in the port, to be stated here.)
Yellow Fever			
Asiatic Cholera			
Cholera Nostras, or Cholerine			
Smallpox			
Typhus Fever			
Plague			
Leprosy			

*If no cases and no deaths, the facts to be stated in these columns.

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Time vessel was in port .....

Number and sanitary condition of passengers and crew landed at this port:

Cabin passengers, No.....; sanitary condition and history:.....

Steerage passengers, No.....; sanitary condition and history:.....

Crew, No.....; sanitary condition and history:.....

(If disembarked on account of sickness, state disease.)

Number and sanitary condition of passengers and crew taken on at this port, and sanitary condition of effects:

Cabin, No. .....; sanitary condition and history;.....

Steerage, No.....; sanitary condition and history:.....

Crew, No.....; sanitary condition and history:.....

Sanitary condition of effects:.....

Total passengers aboard.....; total crew abroad.....

Sanitary history of vessel since leaving last port:

Form. (Cancel Form A, B, or C, as the case requires.)

A.—To the best of my knowledge and belief—
(Form A will be used at intermediate ports where the vessel does not enter and clear.)
B.—I have satisfied myself that—
(Form B will be used at intermediate ports where the vessel enters and clears.)
} no quarantinable disease has appeared aboard since leaving....

C.—Since leaving.....the following-named quarantinable disease has appeared on board....., and I certify that the necessary sanitary measures have been taken.

I certify also that with reference to the passengers, effects, and cargo taken on at this port, the vessel has complied with the rules and regulations made under the law of.....

GIVEN under my hand and seal this.....day of....., 191....

(*Signature of Consular Officer.*).....

(Seal.) .....

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PROPOSITIONS SUBMITTED BY DIFFERENT DELEGATES.

PROPOSITION SUBMITTED BY DOCTOR ELIAS ROJAS, DELEGATE FROM COSTA RICA.

Whereas, The Fourth International Sanitary Conference has for object, besides several others, to recommend such measures as are adequate to fight the ravages of malaria, which disease is, undoubtedly, the endemic of tropical countries;

Whereas, The Third International Sanitary Conference recommended to the Governments there represented the publication of a pamphlet wherein shall be compiled in a brief, simple and practical form and in such manner that the people at large will readily understand it all useful information concerning malaria, and to freely distribute said pamphlet;

Whereas, Though it be true that among the countries represented, are some as the United States of America, the Mexican United States, Cuba, and Panama, which have already undertaken, with brilliant success, the campaign against malaria, there are others where this campaign has been undertaken but in an imperfect manner; and, in order to take advantage of the experience of countries which have preceded us in this work, the undersigned begs to move:

First. That the Fourth International Sanitary Conference of the American Republics, an International Commission, to prepare a pamphlet wherein shall be compiled in a brief, simple and practical form, and in such manner that the people at large will readily understand it, all information and recommendations of principles concerning malaria; and of posters, concise form, regarding the manner of preventing malaria, to be posted in conspicuous places, in schools, churches, railroad stations, and other public places in regions where malaria prevails. This Commission shall likewise prepare models of postal cards and pictures of all kinds for popularizing all information concerning the prevention of malarial infection.

Second. In the next International Conference each Government interested shall signify the number of copies of the pamphlet, posters, postal cards, etc., which it will take.

PROPOSITION PRESENTED BY DOCTOR CARLOS DURAN, DELEGATE FROM COSTA RICA.

I propose, as a measure of extreme advisability and of incalculable benefits for the people of America, that the Governments of the countries represented at this Conferenc be invited to enforce such laws or provisions as they deem advisable in all places the climate of which is favorable to the development of malaria, such laws or provisions to embody the following essential requirements: First. That it be made the duty of proprietors of farms or agricultural or industrial establishments to protect their employees, laborers or peons against mosquito bites, furnishing their houses with the necessary means therefor, such as providing the doors and windows with wire screens; frequent fumigation, and drainage of swamps, etc., in the neighborhood of such houses. Second. That said owners be compelled to furnish their employees and laborers with the amount of quinine necessary for prophylaxis doses; and, Third. That one or more official inspectors be appointed to enforce the compliance with the above provisions and to apply the penalties prescribed for violations of the law.

PROPOSITION SUBMITTED BY DOCTOR HUGO ROBERTS, DELEGATE FROM CUBA.

The Convention of Washington of 1905 makes provision for the treatment to which vessels *infected or suspected* of yellow fever should be subjected, and prescribes that, if possible, immune persons be employed for discharging the cargo; it also makes reference to the rules that should be observed with regard to non-immune personnel. Now, then, it is generally admitted that individuals who have lived a long time in an endemic focus of yellow fever are immune

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to the disease, even if there be no indications that they have previously suffered from it; there are also some people who consider an individual immune for the simple fact that he was born in a place favorable to the development of yellow fever (hot lands).

Therefore, in order that there may be a uniform opinion in regard to what constitutes immunity from yellow fever, the undersigned delegates move:

First. That the next International Sanitary Conference determine what should be the conditions in an individual to be considered as immune from yellow fever.

Second. That a delegate from each nation report upon the limits of endemic foci that exists or have existed of yellow fever in their respective countries, specifying, in the latter case, the dates on which said foci ceased to exist.

PROPOSITION SUBMITTED BY DOCTOR WALTER WYMAN, CHAIRMAN OF THE UNITED STATES DELEGATION.

Whereas, Plague is a disease which is carried from one country to another by the rat; and,

Whereas, The rat commonly infests vessels engaged in commerce; and,

Whereas, Rats in vessels may be destroyed by measures that are not difficult of enforcement and that involve but moderate expense; and,

Whereas, The further spread of this disease among the countries of the Western Hemisphere is a matter of grave concern and should be prevented for the sake of preserving human life and for the preserving of commercial prosperity in the ports of the American Republics; therefore, be it

Resolved, That it is the duty of owners and masters of vessels to rid their vessels of this pest and to keep them free therefrom; and be it further

Resolved, That this should be accomplished by the periodical fumigations of holds of vessels with sulphur gas at periods of from three to six months, and at times when advantage may be taken of the vessels being free from cargo or laid up for repairs; and at all other times vigilance should be exercised by the masters for the destruction of rats by such means as they may deem most effective.

PROPOSITION SUBMITTED BY DOCTOR JOSÉ MARIA SOTO A., DELEGATE FROM COSTA RICA.

The undersigned begs to state that in the report presented the Delegation of Costa Rica mention is made of two serious diseases, of which no cases have been reported in the country as yet. These diseases are rabies and hybaticysts of the liver. And, whereas, in previous Conferences these diseases were not discussed, and as they may easily be transmitted through the introduction of foreign dogs, I beg to submit to the consideration of my illustrious colleagues the following resolution:

That measures relating to the importation of foreign dogs should be adopted, either by submitting them to a strict quarantine or requiring the production of authentic certificates of vaccination or by absolutely prohibiting the introduction of foreign dogs in countries where said diseases have not yet appeared.

PROPOSITION SUBMITTED BY DOCTOR VICENTE CASTRO CERVANTES, DELEGATE FROM NICARAGUA.

I move that bilharziosis be added to the list of diseases against which are designed the preventive measures provided for by this Convention intending to prevent or limit their propagation.

Therefore, microscopic diagnosis of the intestinal and renal secretions of every individual suffering from dysentery or from hematurias, especially if he comes from a place where undoubtedly these dangerous parasites live in company with men.

The protection of indemne individuals shall be made *manu militari* if necessary, by virtue and enforcement of regulations which may be adopted by a commission of physicians who are familiar with this problem or are interested therein.

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LETTERS CONCERNING THE FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.

IMPERIAL HOTEL, SAN JOSÉ, COSTA RICA, December 20, 1909.

DOCTOR JUAN J. ULLOA,

President of the International Sanitary Conference.

Sir: I have the honor to inform you that I received yesterday from the Department of Foreign Relations of Colombia a cablegram accrediting me as a Delegate from that country to the International Sanitary Conference which will be held in this city on the 25th instant.

I have the honor to be, Mr. President,

Very respectfully yours,

MARTIN AMADOR.

REPUBLIC OF COSTA RICA, DEPARTMENT OF FOREIGN RELATIONS,

SAN JOSÉ, December 20, 1909.

Mr. President: I have the honor to inform you that, in the order indicated in the respective list, the members of the Faculty of Medicine and Surgery of Costa Rica will be invited to the inaugural session of the Fourth International Sanitary Conference of the American Republics.

I have the pleasure to renew the assurances of my distinguished consideration

PEDRO IGLESIAS.

DOCTOR JUAN J. ULLOA,

President of the Fourth International Sanitary Conference of the American Republics.

REPUBLIC OF COSTA RICA, DEPARTMENT OF FOREIGN RELATIONS,

SAN JOSÉ, December 22, 1909.

Mr. President: For your information, I have the honor to transcribe below a note, dated the 15th instant, addressed to me by the Minister for Foreign Relations of Guatemala. It is as follows:

"Excellency: I have the honor to confirm the cablegram which, in answer to that sent me by Your Excellency, I addressed Your Excellency yesterday informing the illustrious Government of the sister nation that Doctor Nazario Toledo had been appointed Delegate from Guatemala to the Sanitary Convention that will be held in that capital. Upon informing Your Excellency that by a previous mail the Full Powers of Doctor Toledo were sent to him, I avail myself of this opportunity to offer Your Excellency the assurance of my highest and distinguished consideration.—G. AGUIRRE."

I have the pleasure to renew the testimony of my distinguished consideration.

R. FERNANDEZ GUARDIA.

DOCTOR JUAN J. ULLOA,

President of the Fourth International Sanitary Conference of the American Republics.

REPUBLIC OF COSTA RICA, DEPARTMENT OF FOREIGN RELATIONS,

SAN JOSÉ, December 24, 1909.

Mr. President: For your information, I have the honor to transcribe below a note, dated the 7th of August, last, addressed to me by the Secretary for Foreign Relations of the Republic of Honduras. It is as follows:

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"Mr. Minister: Complying with my offer of the second instant, I have the pleasure to inform Your Excellency that by a supreme resolution of even date, Doctor Fernando Vasquez was appointed Official Representative of my Government before the Fourth International Sanitary Conference that will be held in that city from December 25th of the present year to January 2, 1910. The respective credential has already been issued to said Doctor. In communicating the above to the Government of Your Excellency I have the honor to renew the testimony of my high esteem and distinguished consideration.—José Ma. Ochoa V."

It is my pleasure to renew the assurances of my most distinguished consideration.

Doctor Juan J. Ulloa,

President of the Fourth International Sanitary Conference of the American Republics.

Republic of Costa Rica, Department of Foreign Relations,

San José, December 28, 1909.

Mr. President: I have the honor to inform you that this Department, complying with the request that you made, issued in due time twenty-six invitations addressed to the President of the Faculty of Medicine of Costa Rica for such physicians that might have desired to be present at the inauguration of the Fourth International Conference of the American Republics. Likewise, it sent box seats to the Delegates and their families.

As, after sending the seats referred to, no other suggestion or request was received in regard to the subject, this Department believes that it has duly fulfilled its duty in the matter.

I take advantage of this opportunity to renew the testimony of my highest and most distinguished consideration.

Pedro Iglesias,
Assistant Secretary.

Doctor Juan J. Ulloa,

President of the Fourth International Sanitary Conference of the American Republics.

Republic of Costa Rica, Department of Foreign Relations,

San José, December 29, 1909.

Mr. President: I have the honor to enclose herewith copy of a note of yesterdate, received to-day in this Department from the Legation of Nicaragua, relative to the appointment of Dr. Vicente Castro Cervantes as Delegate from Nicaragua to the Fourth International Sanitary Conference of the American Republics.

I avail myself of this opportunity to renew the assurances of my highest consideration.

R. Fernandez Guardia.

Doctor Juan J. Ulloa,

President of the Fourth International Sanitary Conference of the American Republics.

Legation of Nicaragua,

San José, Costa Rica, December 28, 1909.

Excellency: I have the honor to inform Your Excellency that, under date of yesterday, the Government of Nicaragua has appointed as its Delegate to the Fourth International Sanitary Conference Doctor Vicente Castro, whose ap-

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pointment I beg Your Excellency to communicate to the President of the said Conference.

I beg Your Excellency to accept the renewed assurances of my most distinguished consideration.

ALCEO HAZERA.

HIS EXCELLENCY, SEÑOR RICARDO FERNANDEZ GUARDIA,
Minister for Foreign Relations.

REPUBLIC OF COSTA RICA, DEPARTMENT OF FOREIGN RELATIONS,

SAN JOSÉ, December 30, 1909.

Mr. President: For your information, I have the honor to transcribe herein a cablegram received yesterday in this Department from the Minister for Foreign Affairs of Paraguay. It is as follows:

"This Government regrets its inability to take part in the Sanitary Conference, reserving the right to adhere to the conclusions thereof.—Respectfully, M. JONGRA."

I renew the testimony of my distinguished consideration and esteem.

R. FERNANDEZ GUARDIA.

DOCTOR JUAN J. ULLOA,
President of the Fourth International Sanitary Conference of the American Republics.

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REPORT OF DR. MANUEL CAMILO VIAL, DELEGATE FROM CHILE.

Gentlemen, upon presenting myself among you, I have the extreme gratification of reporting to you that under date of July 23d, of the present year, the International Convention subscribed in Washington, in 1905, was promulgated as a law of the Republic. (Annex 1.)

On May 30, 1908, the Government of the Republic decreed the creation of the International Chilean Information Commission of the American Republics, with headquarters at Santiago, and composed of Drs. Ricardo Davila Boza, Director of the Institute of Hygiene; Lucio Cordova, Secretary of the Superior Board of Public Hygiene, and Pedro Lautaro Ferrer, Sanitary Inspector of the Republic. (Annex 2.)

INFECTIOUS DISEASES IN CHILE.

Bubonic Plague.—During the years 1908 and 1909 we had a few cases of bubonic plague in Arica, Yquique, Antofagasta, Taltal, Tocopilla, and Valparaiso, and an epidemic in Mejillones.

In Arica there were, in 1908, 43 cases of plague with eleven deaths. In the present year, up to December 1st, only 32 cases were reported. The Sanitary Station of Arica isolates and treats the patients, disinfects the rooms, isolates or watches persons that have been in contact with plague patients, co-operated by the administrative authorities, who carry out constant domiciliary visits, clean the streets and houses, and close rooms for a definite period of time. (Annex 3, Reports of the Sanitary Station of Arica.)

In Yquique there were, in 1908, 203 cases of bubonic plague with 17 deaths. Out of the 133 cases that were cured, 64 were treated in their own homes and 69 in the lazaretto.

During the present year only 75 cases have been reported.

The Municipal Chemical Laboratory is entrusted with the disinfection of houses and is provided with good chemical and bacteriological instruments. (Annex 4, Statistical tables.)

In Antofagasta there were, in 1908, 171 cases of plague with 59 deaths.

Due to the ever-increasing importance of this port, the Supreme Government is now carrying on sanitation works that will soon provide that port with a sewer system, greater water supply, and a special system for the distribution of sea water for cleaning sewers, for the fire pumps and for other public and private services.

In Taltal and Tocopilla the cases of plague have been comparatively few, and the Bureau of Public Works has already studied the sewer and waterworks which will soon be carried out in the former.

In Valparaiso, the first commercial code of Chile, there have also been some small epidemics which were destroyed in time, thanks to the energetic measures enforced by the administrative authorities, together with its Municipal Health Department.

From December, 1907, to December, 1908, there were 59 cases with 27 deaths. In the present year no case has been reported.

The reconstruction of the borough of Almendral, which was destroyed by the earthquake of 1906, is carried on with great activity, and, when completed, will provide that borough with wide avenues, many gardens, and a complete Municipal Department of Public Health, with an adequate building of its own. (Annex 4, Bis., Plans, etc.)

In Mejillones, a port recently opened to international commerce and connected with Antofagasta by rail, there has been an epidemic of bubonic plague which lasted from the latter part of 1908 until September of the present year.

The Central Government was placed in the necessity of organizing an extraordinary service, sending the Sanitary Inspector, Dr. Ferrer, with full power to organize it and direct it, and with a complete personnel of nurses and disinfectors.

The total number of cases treated in the houses and lazarettos was 177, with 61 deaths, or 34.36 per cent. The prophylactic method employed by

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Dr. Ferrer consisted of the application of the Yersin serum, and, three days after, of the Haffkine vaccine.

The sanitary personnel, as well as the families of the patients, were immunized in that manner, or an approximate total of three hundred families, which method gave most brilliant results without any serious accidents.

The anti-plague serum of Yersin and the Haffkine vaccine cannot yet be prepared in the Institute of Hygiene of Santiago, and it is, therefore, periodically ordered from the Pasteur Institute of Paris, and distributed gratuitously wherever it is necessary for use in the lazarettos, and on special occasions for private use.

Yellow fever and cholera are unknown in Chile, and no cases have ever arrived from abroad in our ports.

Some cases of trachoma and beri-beri have arrived in steamers coming from Kongkong, but the Sanitary Station of Arica had enforced special measures and the Government enacted additional measures by the Supreme Decree No. 2909. (See Report of the Sanitary Station of Arica.)

The Supreme Government, with the advice of the Superior Council of Public Hygiene, has now under consideration a set of regulations to prevent the introduction by Asiatic immigrants of this new calamity.

Malaria prevails in the towns and the valleys of the Province of Tacna, but in isolated cases, and the Sanitary Station of Arica has made and is making special studies of that disease, for the purpose of submitting to the consideration of the Government such hygienic measures as will improve the sanitary condition of that Province, whose benign climate and uniformity of average temperature will enable it to become one of the healthiest in the country.

Smallpox has been the infecto-contagious disease that has done the greatest damage in our country, both in its endemic and epidemic forms. Sometimes it decreases until it almost disappears, only to reappear sooner or later, causing new and terrible ravages. In the years 1906 and 1907 the mortality decreased in such a way that we cherished hopes that it would disappear entirely, leaving only a few isolated cases in the Province of Concepcion and the Auracanian frontier. In January of the present year the first cases that appeared in Santiago were recorded in the northern and northeastern boroughs which had been invaded by the disease on former occasions. The epidemic spread so rapidly that the authorities were compelled to adopt extraordinary measures. On May 4th the Government promulgated the sanitary police law for the City of Santiago, and on the 29th of the same month made it applicable to the whole country. (Annex 5.)

To fight the epidemic, a special Board of Health was organized under the presidency of the Intendent of the Province, and of which were also members the President of the Superior Council of Hygiene, the President of the Central Vaccination Board, the First Mayor of the Municipality, and the Chief of the Division of Serotherapy of the Institute of Hygiene. This Board of Health ordered the increase of the extraordinary corps of vaccinators, and decided to accept the offer of the medical students for the purpose of carrying on more rapidly the vaccination of the inhabitants of the city.

The output of vaccine virus manufactured by the Division of Serotherapy of the Institute of Hygiene was increased and the cleaning of the city was undertaken. The amount of vaccine delivered to the Central Board of Health from April 23d to July 23d of the present year as follows: 121,226 plates, each for the vaccination of five persons; 445 tubes, each for the vaccination of from 25 to 50 persons, that is to say, the necessary vaccine for 617,265 vaccinations.

The number of vaccinations effected during the same period was of 28,601 original vaccinations, and 161,505 revaccinations, or a total of 190,106.

The cases of smallpox treated in the lazaretto of San José from January 1st to November 30th of the present year was 3,800, with 2,071 deaths, or 54.50 per cent; the cases treated in houses have been incalculable.

The disease prevailed among the untidy and ignorant masses of the people, who could not be made to understand that vaccine was a preventive of the disease; it also prevailed in comparatively remote boroughs. The Government gave the Municipality all sorts of facilities and liberal amounts of money for the cleaning of the city. The same facilities were given to the Board of Beneficence for the isolation of the sick. The Medical Division of the Police Department was entrusted with the execution of the orders of the Board of

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Health and with the enforcement of the Sanitary Police Law. In the beginning of December the epidemic was already under control, only a few cases remaining in the lazaretto.

The intercourse between Santiago and the Provinces facilitated the spread of the disease to some of them, although no extraordinary number of cases was reported in any.

We have not as yet in our country a law making vaccination compulsory, and for that reason smallpox still exists.

This being known as the only prophylactic means against the disease, the hygienists have for many years directed their efforts to secure from our legislature a law making vaccination compulsory, and only recently the Supreme Government included that project among the subjects that will be taken up by Congress in the present extraordinary session.

Diphtheria, typhoid fever and scarlet fever also appear from time to time in small epidemic foci.

The bacteriological diagnosis of diphtheria and typhoid fever is made free of charge to the public by the Institute of Hygiene of Santiago. In 1906 there were in Santiago 82 cases, and during the present year 70 have been reported so far. The anti-diphtheric serum is manufactured by the Division of Serotherapy, which in 1908 produced 2,051 tubes of 20 cubic centimeters. This serum is given to the public free of charge upon presentation of an order from any physician.

Typhoid fever exists principally in the beginning of fall, attacking persons arriving in Santiago from the country places where they go to spend the summer, and where the sources of water supply are in poor condition. During 1908 there were reported in the capital 120 cases, and in the present year 92, up to the present date.

In 1908 there were 88 cases of scarlet fever, and 56 during the present year.

TUBERCULOSIS IN CHILE.

By decree of April 15th, the charter of the "Santiago League Against Tuberculosis" was approved, and in 1903 the "Ladies' Association Against Tuberculosis" was legally constituted.

The League Against Tuberculosis founded and organized a maritime sanatorium which was inaugurated in the port of Cartagena in 1906, which has for object the treatment of lymphatic and scrofulous children.

Up to the present date 127 children of both sexes, from 6 to 14 years of age, have been treated. The statistical tables attached to the last report prove the good results that have been obtained, each child showing a gain of six kilograms during an average stay of 51 days per child, not including the weight gained by the natural growth of each child.

The Ladies Association Against Tuberculosis has founded in Santiago two anti-tuberculous dispensaries. In the city of Santa Rosa de los Andes there is a sanatorium for adult tuberculosis patients, which was founded by the lady philanthropist, Señora Juana Ross de Edwards. (Annex 17. Documents in which these works are given in detail.)

SANITARY ORGANIZATION.

The organization of the sanitary services in Chile is due to the law of December 22, 1891, which provides the duties of the municipal power, and to a constitutional provision (Article 73 of the Constitution of the Republic), which prescribes that all public establishments, especially police matters, shall be under the supervision of the President of the Republic. The Municipal authorities are charged with the service of disinfection, vaccination, sanitary police of animals, hygiene of the people, supply and distribution of drinking water; sanitation of the soil; school hygiene; inspection of public or private slaughter-houses and markets; regulation and inspection of grocery and wine stores; sanitation of houses, and dangerous, uncomfortable or unhealthy establishments; supervision over the sale of drugs; regulation of public establishments, hospitals, asylums and cemeteries; census of municipal territories, and the organization of a service of sanitary inspection.

The municipal authorities have, therefore, the power to regulate all branches of public hygiene, while the national authorities have power only over the

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exterior sanitary police and right of supervision over the sanitary services. However, the law of 1891 failed to invest the municipalities with sufficient powers to carry out such broad duties, as it also failed to provide them with sufficient revenues for the purpose, nor did it bestow upon the Central Government the power to compel them to execute such duties whenever they neglected them. For this reason the law in reference has not succeeded in providing for a sanitary administration suitable to the needs of the country. Few municipalities have proven worthy of the trust deposited in them by the legislators in that year, with the exception of the municipalities of Santiago, Valparaiso, Yquique, Talca, and especially that of Puntarenas, which has organized some of their sanitary services. The Supreme Government has had to take charge of the services of public disinfection, vaccination, supply of water, sanitation of towns, hygiene of houses and schools, regulation of the sale of drugs, etc.

Service of Disinfection.—The Government organized this service in Santiago in 1896. In 1898 it purchased several disinfecting apparatuses, on account of the appearance of bubonic plague in Lisbon, which were immediately distributed among several important cities of the Republic. By law of 1903 the President of the Republic was authorized to establish and maintain disinfecting stations in the cities of Yquique, Antofagasta, Coquimbo, Serena, Valparaiso, San Felipe, Curicó, Talca, Chillan, Concepcion, Talcahuano, Los Angeles, and Valdivia.

In 1907 there were in operation seven disinfecting stations. The rest are now being installed.

Vaccination Service.—The Government of the Republic renders this service free of charge to the public, through the Central Board, and causes the necessary vaccine to be prepared in the Laboratory of Serotherapy of the Institute of Hygiene, formerly called the Institute of Animal Vaccine.

Supply and Distribution of Drinking Water.—These works are most costly and difficult, and require the investment of large sums of money and the employment of a technical personnel capable of preparing plans and supervising the work of construction. Almost all the water supplies in the country have been built, regulated, maintained, and improved by the Government. The following water supplies are in operation:

Fiscal.—Coquimbo, Ovalle, Chincolo, Ligua, Los Andes, Valparaiso, Santiago, San Bernardo, Melipilla, Bengo, San Fernando, Curicó, Talca, San Javier, Cauquenes, Quirigue, Chanco, Constitucion, Concepcion, Talcahuano, Coronel, Los Angeles, Arauco, Lebu, Cañete, Angol, Valdivia, Vicuña, San Felipe, Linares, and Chillán.

Municipal.—Tacna, Vallenar, Serena, Petorca, Putaendo, Quillota, Rancagua, Nunhue, Yumbel, Tomé, Puerto Montt and Puntarenas.

Private.—Yquique, Tocopilla and Puntarenas.

Improvement works under construction.—San Felipe, San Fernando, Linares, and Chanco.

New works under construction.—Copiapó, Combarbala, Quilque, San José de Maipo, Mulchen, Collipulli and Victoria.

Improvement works, the studies of which have been completed.—Molina, Cauquenes, Quirique and Angol.

New works, the studies of which have been completed.—Yllapel, Limache, Casablanca, Buin, Curepto, Parral, Yungay, Concepcion, Talcahuano, Nacimiento, Tucapel, Temuco and Osorno.

Improvement works under consideration. Vicuña and Talca.

New works under consideration.—Taltal, Los Vilos, La Calera, Peumo, San Carlos, Florida, La Union, Castro. (Annex 6, tables and complete details in regard to most of these works.)

In Santiago, which gets its supply from the springs of Vitacura and Ramon, there was in 1908 an average production that ranged between 55,944 cubic meters in December and 80,821 in the month of January, and an average consumption from 51,430 cubic meters in the month of June to 56,914 in the month of December.

The length of the water pipes in January, 1908, was of 305,393.87 meters, and in January, 1909, 320,267.27 meters, and on October 30th of the present year, 337,154.22.

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The average daily production, during 1908, and the consumption, the figures for which are not yet available, may be estimated as follows:

Vitacura	36,000 M3
Ramon	14,500 M3
Total	50,500 M3

The scarcity of water during the last two years is due to the small amount of snow falling from the mountains.

In 1908 there initiated in Vitacura the works for increasing the production of that source, which works will be completed by 1910, and the average production of Vitacura will be of 75,000 cubic meters per day, which added to the daily average production of the Quebrada de Ramon, of 23,000 cubic meters, will make a daily average of 98,000 cubic meters for the City of Santiago. There is at present under process of construction a distribution dam with a capacity for 40,000 cubic meters, the cost of which will be 1,000,000 pesos, national currency.

SANITATION WORKS.

The works for the improvement of the sanitation of cities and dwellings have received development with the advances attained by sanitary science in the protection of life. The importance of those works is fully justified by the fact that upon public health rests the welfare and progress of nations. The construction of underground air-tight sewers is an indispensable element for the sanitation of the city, but as such works could not be undertaken by the municipalities, the sewer systems of some of the most important cities of the Republic, together with other sanitation works which will greatly reduce the mortality of such towns, were not carried out by the respective municipalities, but by the Government of the Republic.

In order that the Bureau which has under its charge the execution of sanitation works might also have the supervision over water supplies, the Supreme Government decreed that both Bureaus should be under control of the Bureau of Public Works, by virtue of Law No. 1835, of February 14, 1906.

Sewerage in Santiago.—The plans presented by the Batignolles Fould Company (Proposal B) were approved on December 27, 1904, and the work of construction of the sewer system in the capital was inaugurated on August 12, 1905.

The plan of that sewer system is based upon the unitarian method. The project under execution is composed of two separate lines, one to the south of Mapocho River, terminating at the Zanjon de la Aguada two and a half kilometers from the city, and the other to the north of the same river, terminating at about the same distance. The system has a total length of three hundred and four meters, and the cost of the contract will be of 16,780,000 pesos, gold of 18 pence, and 3,730,000 pesos, national currency, for the enlargement of the water supply and the paving of streets. A careful study has been made of the distribution of the system and the automatic cleaning of the same, their ventilation, and purifying fields to be used when the Government deems it convenient.

The volume of liquid that will be carried by the conduit per year has been estimated at 120,845,358 cubic meters, which would be sufficient to irrigate a parcel of land of 1,208 hectares, assuming that each hectare is capable of purifying 100,000 cubic meters of used water per year.

Provision has also been made for a sewer system of sufficient capacity to conduct waste and rain waters (Annex 7, Report presented to the Minister of the Interior in regard to the bidding of contracts for the sewer system of Santiago, by A. Bertrand; documents and illustrations; Brief statement in regard to the work done by the technical division of the Fiscal Bureau of the Department of the Interior; and regulations for the construction of sewers in houses).

The length of the canals built up to October of the present year was 305,347 meters; the number of accessory works was 3,060; the number of connections for house sewers, etc., was of 18,730; the conduits in the southern section of the city already reach a length of 3,500 meters, and the sewer system in the central part of the city is now in operation.

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The installations of sewers in houses, made in accordance with regulations, and most of which connected with the general system, are 1,200, approximately, and the works of construction of street sewers, which are already in a greatly advanced state, can be estimated at a total value of 12,900,000 pesos.

Sewerage in Antofagasta.—The system now under construction, according to the Ateaga project approved by the Supreme Government, provides for a sewer service for the disposal of waste water, and a system of distribution of sea water for the cleaning of sewers, for the fire pumps, etc.

One section of Antofagasta is built on a slope at the foot of a range of mountains, and the other section on a perfectly level ground by the seashore; there are marked differences between those two zones, separated by the railroad line from the point of view of the general sanitation of the city; both sections are separable on account of their great differences of heights and inclines, the higher one having greater facilities for the development of the conduit and the drainage. But, if the separation of services is theoretically more perfect, one single system is practically more desirable.

The plan of the city make the zig-zag system of sewers preferable to any other.

The cost of the Ateaga project is as follows:

	Pesos gold of 18d.
Sewer system	$397,198.08
Cleaning service	42,273.70
Distribution service	192,102.90

According to estimates made by the engineers, the cost of elevating the water from the sea will be ten cents per cubic meter, an insignificant amount in comparison to the price of drinking water, and the supply of sea water is of 75 daily liters per inhabitant, a sufficient quantity that will ensure the good operation of the sewer system and of the other services which I have mentioned. (Annex 8, plans, specifications, etc.)

Sewerage in Talca.—The project for the sanitation of the City of Talca comprises the three following parts: Sewerage, pipe line for the clearing of the sewerage, and deviation of the Baeza Creek.

The sewer system will be on the zig-zag plan; the same waters that now supply the canals of the city for cleaning the sewerage lines, establishing for this purpose a special system of pipes for the continuous washing of sewers.

The Baeza Creek, which traverses the most densely populated district of the city and which receives not only the waters from the canals, but also the refuse from the neighboring houses, would, after the completion of the sewer system, be a source of infection for the city. For this reason the Government has decided, as the best and cheapest solution, to deviate the course of that creek, so as to make it empty into the Claro River.

The City Talca gets its supply of water from the Baeza Mountain, and work is now in progress to enlarge that supply so that it may furnish 100 liters per inhabitant every 24 hours.

The present population of the City of Talca is estimated at 40,000 inhabitants, but as the sewerage system will be built for a period of not less than sixty years, they have been planned upon a basis of 80,000 inhabitants. (Annex 9, plan of the city and of the sanitation works.)

Sewerage in Curico.—The City Curico has a population of about 15,000 inhabitants; the sewer works have been planned upon a basis of a much larger population.

The project includes a line of unitary system which stretches towards the part of the city comprised in the Alameda, Avenida Camilo Henriquez, Calle O'Higgins, and Calle San Martin; for the future enlargement of the system, part of the city to the east of the Alameda, and part to the north of the Avenida Camilo Henriquez, have been taken into consideration, each to be provided with a separate system.

The zig-zag plan was first tried, but on account of the slight declivity of the ground it was decided to adopt the rectangular system. The ventilation of the system is made by means of inspection chambers and the house connections. The washing of the sewers is continuous in all the principal pipes, and intermittent in all the secondary ones. (Geneste-Hersscher washers.)

The appropriation for these works amounts to 426,000 pesos gold of 18d.

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(Annex 10, complete specifications of the project and plan of the city, with the distribution of the sewer system.)

Sewerage in Chillan.—The City of Chillan needed, perhaps more than any other town, this most important service, on account of the almost absolute lack of canals that, even though imperfectly, would take the place of sewerage, and the inhabitants were compelled to use the primitive system of open wells. Through the southern part of Chillan runs the Las Toscas Creek, the depth of which is five meters; Chillan is an exceptionally level and regular city.

The separate system has been adopted, because otherwise there would not have been sufficient water, on account of the conditions of the locality, for the washing of the sewers on the unitary system. The zig-zag plan, which would have provided for the continuous washing of the sewers, could not be adopted on account of the slight declivity of the ground. The system adopted is best suited for the city. The necessary water for the cleaning of the system is taken from the municipal canal, for which purpose the necessary plant has been constructed in the grounds of the Agricultural Station.

The total appropriation for these works amounts to 960,000 pesos gold of 18d. (Annex 11, complete specification and details of the project and plans of the city showing the distribution of the sewerage system.)

Sewerage in Concepcion.—These works were under construction in accordance with the project approved by the Government, and presented by the English Company, but some modifications had to be made lately, which are still being established, and for this reason I do not give any details in regard to them. (Annex 12, general plan of the sewer and water-supply systems.)

Sewerage in Los Angeles, in Laserena, San Felipe, Temuco, Valdivia, and Taltal.—The projects for these works are almost completed, and they will be ready in 1910. (Annex 13, specifications for the construction of sewers in the Republic; regulations governing contracts for public works.)

HYGIENE OF HOUSES.

The government has also been placed in the necessity of taking care of this branch of public health, and by Law of February 20, 1906, a Council on Houses for Workingmen was constituted, which prepared the regulations regarding dwellings of laborers, approved by the Government in September of the same year.

For the purpose of building sanitary houses for the people, in substitution for the unhealthy ones that will have to be torn down, the Supreme Council on Houses secured authorization from the Government, under the Law of July 16, 1907, to negotiate a loan of 6,000,000 pesos, guaranteed by the Government.

The Government has under consideration the regulations for that law, and the Council on Houses is preparing the regulations for the administration of workmen's houses. In Santiago there have been demolished several unhealthy houses, others have been repaired, and several private dwellings for laborers have been approved as sanitary. All the Departmental Councils on Houses have been organized in the capitals of Provinces, and in the capitals of the Departments of Quillota, Limache, Coquimbo, Constitucion, San Carlos, Tome, Ovalle, and another one will be established in Talcahuano. In this respect private initiative took the lead, and for some years we have had workingmen's settlements in the capital, such as those of Leon XIII, Pio IX, Ovalle, and others.

SCHOOL HYGIENE.

The Government has now charge of the school hygiene, which is under the supervision of the Department of Public Instruction.

SUPERVISION OVER THE SALE OF DRUGS.

After this date the Municipalities have made very little use of the powers vested in them by the Law of 1891, and the drug stores and apothecaries have been governed by the regulations enacted by the Executive Power, in pursuance of the laws of January 9, 1879, and July 15, 1871. The Budget Law of 1897 created the Commission for the Inspection of Drug Stores, under the supervision of the Supreme Council of Public Hygiene.

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CENTRAL AUTHORITY OF THE GOVERNMENT.

The President of the Republic has supreme inspection over all police matters. According to our Legislation only one branch of public hygiene, the Exterior Police, is absolutely controlled by the Executive Power; everything else is under the exclusive charge of the municipal authorities.

The President of the Republic appoints the harbor physicians and the personnel for the only sanitary station that we have in the country, which officers are charged with the duty of enforcing the maritime health regulations. The President also appoints the personnel for land sanitary stations wherever they are established. He exercises also active intervention, on special occasions, in the public health of cities, or in cases of contagious epidemics, by virtue of the Sanitary Police Law of December 30, 1886.

Outside of the services which we have just enumerated the Executive has no power to interfere, unless it be to exercise the right of supreme inspection. In order to advise on sanitary matters the law has created, under the Minister of the Interior, a Supreme Council of Public Hygiene as an Advisory Board; to advise the Governors on similar matters a Supreme Decree has organized the Departmental Councils of Hygiene. On January 25, 1907, a Division of Hygiene and Public Beneficence, under the Minister of the Interior, was created. The Law of September 28, 1898, organized Sanitary Inspection of the Republic, as a division of the Superior Council of Public Hygiene. The Institute of Hygiene, also a division of the Supreme Council, was organized by Law of September 15, 1892; it is composed of five sections, to wit: Hygiene and Demography; Chemistry; Microscopy; Bacteriology; Serotherapy, and Disinfection.

This Institute publishes the Review of Hygiene, and the Bulletin of Hygiene and Demography. (Annex 14, collection of these publications in which are described the services that that Institute renders to the public.)

Sanitary Station of Arica.—This Sanitary Station receives continuously reports by means of which it is kept informed on the sanitary condition of the neighboring nations. It has a recently built lazaretto, equipped with laboratories, a library, etc. This sanitary station is governed by the regulations approved by the Supreme Government on August 13, 1908. (Annex 15, regulations for the Sanitary Station, and National Sanitary Laws, relating to international prophylaxis.)

In 1908 the Sanitary Station disinfected 150 vessels and examined 1,364 members of crews and 7,137 passengers. Only four vessels, arrived from Kongkong with Trachoma and Beri-Beri, were placed under quarantine.

It is provided with a steam launch with a Clayton apparatus and an ambulance wagon. (See Annex 3, complete details in regard to the Sanitary Station and its lazaretto, photographs, etc.)

PUBLIC BENEFICENCE IN CHILE.

The organization of this service is due to the protective power vested by the Political Constitution of the Republic in the President, although up to the present date no organic law has been passed in regard thereto. It is in regard to these branches of public health and welfare that the action of the Government has been most efficient.

Almost all the hospitals and asylums in the country were founded by the Government; it is the Government who takes care and treats the insane people; it is the Government who protects the homeless children, caring for them in Orphan Asylums which it supports by means of liberal appropriations. Item 11 of the appropriation for the Department of the Interior for the year 1908 assigns the sum of 4,121,800 pesos for hospitals and asylums, and 791,161 pesos for buildings to be devoted to such purposes. (Annex 16, organization of Public Beneficence in Chile, and especially of Santiago.)

NEW SANITARY CODE.

The principal aim of the Government is the organization of a Central Bureau of Public Health, having executive control over the sanitary services of the country. Doctors Mariano Guerrero, Lucio Cordova, member and secretary, respectively, of the Supreme Council of Health, were sent to foreign countries for the purpose of stuyding the most modern sanitary services adapted to our

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country, and they have recently submitted a sanitary code which provides for all our needs, and which I now have the honor to submit to you. Doctors Ramon Corvalan Mergarejo, Acting President of the Supreme Council of Hygiene, and Paulino Alfonso, a member thereof, and both members of the House of Deputies, have prepared a bill for a sanitary code which differs from the former in that it diminishes the powers of the Director-General of Health and increases those of the Supreme Council of Hygiene. This bill I also have the honor to submit to you.

The keen interest of the President of the Republic in carrying out, as soon as possible, one of these two projects, has moved him to appoint a commission of senators, deputies, members of the Superior Council of Hygiene, and renowned hygienists to study these projects and to submit as soon as possible to the approval of the Legislature the one that may be deemed the most suitable. We are, therefore, animated by the desire to reform our present sanitary service so that we may have a more perfect one, which should be in conformity with the latest achievements of hygiene and public health. (Annex 17, both projects.)

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REPORT OF DR. MARTIN AMADOR, DELEGATE FROM COLOMBIA.

Messrs. Delegates: Having been absent from Colombia for several years, and having been appointed as its delegate before this assembly scarcely seven days ago, my report must necessarily be laconic and deficient, by reason both of the lack of time and of data regarding the sanitary conditions of that rich country.

The Government has always given preferential attention to public health, and more especially to the sanitation of ports on the Atlantic and the Pacific, and to it is due to a large extent the fact that foreigners visit the country without fear, and the constant decrease of mortality therein.

The disturbances through which the country has undergone during the last two years, even though now the Government is earnestly devoted to the maintenance of peace and order—which are the aspiration of all countries striving to advance in the path of civilization and progress—have, so far as I am informed, handicapped the legislation in regard to the subjects decided upon by the last Sanitary Congress.

Nevertheless, the operation of the Boards of Health has been very efficient throughout the country, particularly in the ports where the diseases prevailing in tropical climates have been successfully fought.

In towns, like Cartagena, where formerly the supply of water was obtained from wells and tanks—which might be properly called breeding places for mosquitoes—health has advanced noticeably, thanks to the building of aqueducts, which now furnish a pure and healthful liquid, entirely free from germs. To that fact is due the almost complete disappearance of sporadic cases of yellow fever that used to occur among the inhabitants of the highlands.

Colombia has up to the present date been free from bubonic plague, in spite of the fact that some of the neighboring countries had been invaded by that disease. This result is due to the timely measures adopted by the Government, which also provided itself with a goodly number of Clayton apparatus and great quantities of anti-plague serum—the Government being always ready to fight the epidemic and to protect the ports against infection.

I will now report upon the presence of leprosy in Colombia, and upon the measures taken by the Government for the isolation of the patients and the prevention of the spread of the disease.

The following data has been taken from the report presented by the Minister of the Interior to the National Constituent and Legislative Assembly, under date of July 20, 1908; this report is really meritorious because the Minister that prepared it was for over ten years in charge of that branch, and Governor of the two Departments which had suffered most from the attacks of that dreadful scourge.

There are three leper colonies in the country, to wit: Agua de Dios, Contratación, and Caño del Oro, the first of which has sixteen hundred patients, and to it are sent the patients from eight Departments.

The proportion of persons afflicted with the disease is less than one per thousand, which shows that the country has but one-sixth, at most, of the number of lepers usually attributed to it.

Indeed, the population of Colombia may be estimated at five million inhabitants, whereas the total of lepers is only four thousand six hundred and thirty-nine.

At present, over fifty per cent of the lepers are isolated in the different lazarettos.

Before the patients are admitted to the colonies, they are subjected to a clinical and bacteriological examination, in order to prevent in the colonies the admission of persons suffering from another disease. Even since that examination was started, three hundred and twenty-four individuals who had been erroneously confined in the lazarettos have been discharged.

Formerly the Government was able to isolate but fourteen per cent of the total number of lepers in the country; during the last five years it isolated, as I have said, over fifty per cent. We will, therefore, soon be able to control and eradicate the scourge, as several European nations have been able to do, by means of isolation.

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There have been opened in the Agua de Dios colony three modern pavilions, with capacity for two hundred and fifty patients; an asylum for orphan girls; another for boys; an aqueduct—perhaps the most important work of its kind in the country—which, taking the water from the Bogotá River, carries it by means of battery rams to a height of 65 meters through steel tubes seven inches in diameter and 4,200 meters in length, furnishing each one of the three thousand patients that can be lodged in the colony with one hundred and twenty liters of water per day; an asylum for healthy children born of lepers isolated in the colonies; and three more pavilions with a capacity for three hundred patients.

The medical service, as the report in reference says, is complete and is done under the control of three notable physicians, two of whom are bacteriologists.

Another of the measures enforced to prevent the propagation of leprosy is the coinage of a special metallic money for circulation within the radius of the colonies, which facilitates the transaction of business among the patients. In order that the patients may fully enjoy their civil rights, there have also been established in the colonies several courts of justice. The first of these measures has principally for object to protect public hygiene by avoiding the use by healthy people of money employed by lepers, and at the same time placing no ban whatever upon business transactions in the colonies; and the second measure facilitates isolation, guaranteeing at the same time the personal rights of all the patients.

The supreme control of the leper colonies has been intrusted to the Government of the Republic since 1905; the government has given them a uniform organization and empowered the Governors of the Departments in which said colonies are located to inspect them for the purpose of enforcing all the measures enacted for the safeguard of the community and the prevention of contagion.

The most modern treatments employed in Europe and recommended by science have been adopted in our different colonies. Recently, in view of the promising results obtained by Professor Unna, a diplomatic agent of the Republic was intrusted with the special mission of making a careful study of the treatment discovered by that distinguished leprologist, and of securing from him personally the necessary instructions for the establishment in the colonies of the nation of the cure which that professor advocated before the International Medical Congress of Lisbon.

I regret, gentlemen, my inability to report upon the other topics included in the programme previously agreed upon for this Congress, but, as I said before, the lack of time and of data compel me to make this report a short one, and to confine it to the last two years.

But my willingness to co-operate with you is great, and I am sure that your labors will be fruitful in benefits for the countries of America, and I shall take particular pains in informing the Government of Colombia with regard to such resolutions as may be passed by this scientific assembly.

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REPORT PRESENTED BY THE DELEGATION OF THE REPUBLIC OF COSTA RICA, COMPOSED BY DOCTORS JUAN J. ULLOA, PRESIDENT; CARLOS DURAN, ELIAS ROJAS, AND JOSÉ M. SOTO, SECRETARY.

I.

SANITARY MEASURES AND LAWS IN FORCE IN THE COUNTRY.

Public hygiene is attaining every day a greater importance among us, as a practical science of constant use and as an institution destined to strengthen and widen our wealth, through the transcendental effects which it exercises upon the development of social welfare.

It is true that in this respect we have not made the same progress attained in other branches; but what has already been done, together with the probability, founded upon powerful reasons, that in no time shall we abandon the task that has been undertaken, are circumstances which enable us to predict, with the utmost confidence, a better epoch for public health and a progressive activity in our sanitary improvement.

Private initiative, wisely promoted by scientific propaganda, and the efficient action of the Government, will give us within a short period the position that belongs to us in the concert of civilized nations, from the point of view of hygiene and sanitation.

In Costa Rica, as is the case in many countries of the American Continent, we have not as yet a true sanitary legislation. The principles and provisions of this nature are scattered in different laws, and several of them are inefficient, on account of the lack of effective sanction that would prevent the inhabitants from evading their compliance, thus rendering void, to a certain extent, the rigor with which such duties should be invested, and relaxing also the zeal of the authorities.

Therefore, it is imperative, as a measure of urgent necessity, to adopt a sanitary code, based upon the principles of modern sanitary science and upon those recommended by the International Sanitary Conferences of the American Republics for the purpose of establishing for the new world an International Sanitary Code.

It may be a difficult task, but it is indispensable that we should undertake it as soon as possible. Besides, there is already a working basis for the deliberations of our legislators: we refer to the project for a sanitary code prepared by the Faculty of Medicine and Surgery, which should be discussed without any delay, and to this end shall be directed the efforts of the Recess Committee to be appointed by the present Fourth Conference, and with which we, the members of the Delegation of Costa Rica, shall co-operate with all our might, personally binding ourselves to do so.

A serious question arises in regard to the subject; and that is, that the order of ideas in which, by reason of its peculiar character, sanitary legislation of to-day, should be inspired, is sometimes in open conflict with the general political order, especially with civil law and with some principles of public law; for this reason the establishment of a severe and firm sanitary régime in the country will be difficult so long as the legislative power does not overcome that obstacle, harmonizing the sacred interests of hygienic science with those of judicial life of the community.

In consequence, we believe that at the opportune moment and by means of an ample and impartial discussion greater efforts shall be made to find a satisfactory solution, which will protect at the same time the rights of public and personal liberty and those of the most important administration of public health, the supreme law of nations, under whose redeeming protection human existence is ennobled and strengthened, social welfare is fulfilled without reserve and the wealth of the people increased, saving lives, pushing progress upon the basis of physical resistance which is at the same time the principle of the intellectual and moral advance of society, and considerably promoting the great activities of labor.

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The sanitary laws of Costa Rica are of two kinds: national and municipal. Among the former we have the following:

First, several provisions in regard to public hygiene, contained in the Penal Code of 1881; second, other provisions contained in full General Regulations of Police, of 1849; third, the International Sanitary Convention signed at Washington on October 14, 1905, and approved by our Constitutional Congress in the regular sessions of 1906; fourth, the law of town physicians, of October 30, 1894; fifth, the law on venereal prophylaxis, of July 28, 1894, partly in force; sixth, law regulating the practice of medicine, of August 12, 1902 (No. 73); seventh, Pharmacy Law of August 12, 1902 (No. 74); eighth, law regulating the introduction and sale of opium, morphine, and its alkaloids, of January 9, 1907.

Besides the above, there are several articles relating to special subjects of hygiene, to which we shall make reference elsewhere in this report, and which are scattered in different laws.

The municipal regulations in force within the respective jurisdiction of the different municipalities are subject to the principles of the municipal ordinances.

These regulations refer to buildings, tenement houses, dairies and stables, slaughter-houses, destruction of dogs, public bath-houses, meat markets, sewers, organic refuse, sanitary beneficence, cleanliness of towns, cemeteries, vaccination, markets, etc.

In regard to the first subject of the Programme of the Conference we have to report that, after the Conference of Mexico, held in the latter part of December, 1907, the Government of the Republic has enacted two provisions which are extremely useful to the interests of hygiene; an executive resolution, during the fiscal year 1907-8, ordering town physicians to keep special registers of vaccination, hygiene, treatment of patients, and medico-legal service. In the register of hygiene the following subjects must be recorded, by means of numbered entries: The result of the observations made by physicians in regard to diseases prevailing in places under their jurisdiction; time of their appearance; their causes and means of preventing them, making mention of the method of prophylaxis advised by the official to the police authorities for the extermination of said diseases; any causes of mortality in children; the visits of inspection in places where articles of daily consumption are sold, and in markets, hotels, inns, and drug stores; the result of said inspections, and the date on which they were made.

The said resolution makes it also the duty of those officials to send within the first five days of each month to the Department of Police a report on the services rendered by them and on everything concerning the health conditions of the respective circuits during the previous months. These measures are of indisputable practical significance and for this reason we make mention of them.

The second provision to which we refer is that approving the contract entered into between the Department of Police and Drs. Carlos Pupo and Luis Paulino Jimenez, and the establishment of a laboratory for bacteriological and microscopical examinations of food products and pathological substances; for the preservation of serums and vaccines introduced by the Government; and to render free services to the health authorities and to indigent persons applying thereto.

It is not necessary to praise the benefits that we are to derive from this laboratory; we shall, therefore, confine ourselves to report that it has already been opened to the public and that the country is now provided with this new element, favorable in every respect to the cause of hygiene.

Finally, we beg leave to express in this chief chapter a vote of praise for the administration so worthily presided over by Señor Licenciado Don Cleto Gonzalez Víquez, one of our foremost hygienists, for the zeal with which he has administered during his term to all subjects relating to public health, to which he has always given pre-eminent attention, in the midst of his numberless duties. Public health has yet much to expect from his talent and activity, he being, as he has always been, one of the most active champions of all humanitarian propaganda in Costa Rica.

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II.

COMPLIANCE WITH THE RESOLUTIONS ADOPTED IN PREVIOUS CONFERENCES.

With reference to this subject we beg to report that vaccination against smallpox is compulsory in the country, and that it is practiced with due frequency, especially among school children. The health officials devote their undivided attention to this service, the results of which are most satisfactory.

The Department of Police receives every month 250 tubes of Swiss vaccine and distributes them discretionally among the medical officers of the Departments. When, in February of this year, a smallpox epidemic broke out in Honduras, the necessary preventive measures were immediately enforced, on account of the danger of infection due to the relative proximity of the foci of infection, when that Department made an extraordinary order for 5,000 tubes, and vaccination and revaccination was effected throughout the Republic regardless of age. Happily, the danger was overcome, but, nevertheless, the preventive measures against smallpox are persevering among us.

In regard to malaria, which causes so much ravage in the Atlantic littoral, the scientific campaign is active in the country. The Government has widely distributed several publications for the purpose of popularizing the most interesting points in regard to the cause, prevention, and treatment of said disease. Among those publications, the following are worthy of mention: "The Study of Malaria," by Dr. Ronald Ross, translated into Spanish by Dr. T. H. Calnek and Luis P. Jimenez; and "Instructions for the Destruction of Mosquitoes, Especially the Yellow Fever Mosquito," by Dr. W. C. Gorgas, translated into Spanish by Señor Licenciado Don Cleto Gonzalez Víquez.

We attach utmost importance to the advisability of declaring free of fiscal duties quinine salts, fine-mesh wire and gauze used for protection against mosquitoes, crude petroleum, ready-made mosquito netting, and such products as are used in the manufacture thereof; as well as the establishment of centers for the free distribution of quinine to the poor for the prophylaxis of malaria in places where the disease is prevalent. And we trust that such recommendations of the Conference of Mexico will soon be officially adopted in the Republic.

In regard to immigration, we have good protective laws. The introduction in our territory of persons suffering from leprosy, bubonic plague, yellow fever, and other diseases, which in the opinion of the sanitary authorities may be contagious, is prohibited.

Since 1897 the immigration of Chinese is absolutely prohibited, as is, also, since 1904, that of Turks, Assyrians, Armenians, and gypsies of any nationality, as a protective means against the physiological degeneration of the race, and the introduction of Oriental diseases.

By a decree of the 1st instant, the legislative power has approved a railroad law which is already in force. It authorizes the department of promotion to compel the railroad companies to comply with the regulations on the police and proper administration of the service in everything effecting the safety of persons. The Government is, therefore, in a position to include in those regulations the recommendations made by the previous Conference in regard to the hygiene of railroad traffic.

In regard to tuberculosis and to the prophylaxis of other contagious diseases specified in the Programme, we shall give details when we dwell upon them in particular in another chapter of this report.

The Convention of Washington of 1905 has been faithfully complied with in Costa Rica.

By decree of April 23, 1908, the Port of Limon was closed to vessels coming from the Republic of Venezuela on account of the epidemic of plague that broke out in the Port La Guaira.

By decree of May 7, 1908, the quarantine against vessels from Havana, where there had formerly been some cases of yellow fever, was abolished.

By decree of July 6th of the same year vessels from Port-of-Spain, Trinidad, on account of the bubonic plague, were denied entry in Port Limon.

By decree of October 19th, last, the quarantine against vessels from Venezuela was abolished, because it was proven by official reports that plague had disappeared from that Republic.

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Outside of these Governmental provisions, the Department of Police, which has the supreme control of public health, has enacted all the necessary measures for the exact fulfilment of the said Convention of Washington.

III.

REPORTS IN REGARD TO THE SANITARY CONDITION OF PORTS AND PROPOSED MEASURES FOR THE IMPROVEMENT OF SAID CONDITIONS, WITH SPECIAL REFERENCE TO THE PRINCIPAL PORTS.

A.—Port of Puntarenas.

The sanitary condition of this port has been satisfactory during the last two years. There has been no epidemic nor infection of serious diseases.

The three principal diseases were:

First, malaria, of which, in 1908, there were only 78 cases in some unhealthy places along the coast. There are formed in winter small swamps which are propitious for the propagation of mosquitoes.

Second, ankylostomiasis, of which there were 50 cases last year, the majority of the patients being from Esparta, Miramar, and Minas de Abangares.

Third, tuberculosis, of which there were 21 cases in 1908 and 12 in the current year; some of the patients came from the Province of Guanacaste.

Besides this, there are cases of dysentery, malaria, whooping-cough, and isolated cases of measles, and pernicious fever.

The death rate is lower than that of some cities situated on the central plateau (30.58 per thousand in the last nine years).

Animal parasites of the digestive apparatus are plentiful, especially the *tricocefalus*, the *asearis lombiscoides*, and the *uncinario duedonalis*, which cause a considerable amount of cases of chronic diarrhea in children.

The proportion of venereal diseases in the town is remarkable. Syphilis and gonococcic urethritis have established themselves in the port and they are a real scourge.

For the service of hygiene the city is divided into four districts. The cleaning of streets, houses, parks, and public places is made regularly. The personnel engaged in these duties is sufficient and leaves nothing to be desired.

Vaccination is made at fixed periods and by series of 200 to 300 individuals.

The health service is always rigid, especially when there is information in regard to the appearance of epidemic in the northern and southern ports.

There is not an adequate building for a lazaretto. For yellow fever cases there is a well-equipped pavilion which has not yet been used, because there have been no cases as yet. There is no pavilion for the isolation of consumptives.

The disinfection of merchandise, baggage, and rooms is made with a Clayton apparatus, using sulphur steam.

The water consumed in Puntarenas comes from natural filtrations, and is extracted by means of suction pumps, duly distributed throughout the streets of the city.

The plans for the water supply system are completed; the supply will be taken from the springs of the Naranjo River, under conditions very favorable for the health of the city.

There are no sewers. An active campaign is carried on against mosquitoes.

The above is all that there is to be reported in regard to this port.

B.—Port of Limon.

The population of this port is over 8,000; the majority of the inhabitants is composed of Jamaica negroes, tramp laborers from the West Indies, and men from the coasts of Nicaragua, Colombia, and Panama; there are more men than women.

The soil is formed on an irregular plane, the highest point of which is 9 feet over the sea level. The inhabited portion of the town measures a longitude of 3,150 meters by 1,900 meters wide. In a small section of the city the ground was imperfectly filled in with refuse and garbage, without being previously drained. In some places the rain water stops at a depth of one foot on account of imper-

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meability of the sub-soil. Organic decompositions are active; the phenomena of oxidation, on the contrary, are reduced to a minimum. The improvement of this part of Limon, by means of filling, drainage and canalization is imperative.

The sanitation and embellishment of the city have greatly improved since the widening of the northern part thereof; the new borough, which has a splendid topographic position, is already under construction.

The city is comprised in the isothermic tropical line, within the zone of the trade winds, and under the influence of the cloud-ring. Its climate is torrid, and its mean temperature is 25.44°, with differences oscillating between 3 and 4 degrees. In some years it rains for 275 days; there are seasons lasting two or three months, in which the rains are continuous. There is much dampness.

Formerly, drinking water was collected by means of main pipes along the Banano River, at seven and a half miles from the city. Recently, repairs were made in the supply tanks and in the pipes, and there is now plenty of good water for the needs of the town.

There are in the city five hundred blocks, approximately; nearly four hundred of them have buildings; these are not in proportion to the number of inhabitants, the result being that there is excessive conglomeration of people in rooms and barracks to the detriment of hygiene. In view thereof, regulations on buildings have been enacted, the purpose of which is to remedy such conglomeration of rooms in lots in order to get as much revenue as possible from the land, and to prevent the overcrowding of those rooms, as is now done, either on account of the scarcity of houses or for the sake of economy, rent being very high.

The sewer system of Limon was built in rather unsatisfactory conditions. The bed of the ejecting canals is level and its declivity slight; besides, there was not sufficient pressure of water to effect the cleaning of the sewers. Now the communicating line of sewers has been completed with vitrified earthen pipes; the whole town can deject in privies and dispose of the liquid refuse through the sewers. In the whole town there remain only 46 well-privies, which will soon be filled in, and then the town will be entirely free from the infections that they spread.

The cleaning service of the city is perfect; transportation of garbage or refuse by means of wagons of the *Columbia* model; daily sweeping of the streets by squads of peons; cleaning of pipes and privies with copper sulphate; constant general inspection of houses, yards, and sites; disinfection of rooms with irrigation of Kreso, and of ponds, swamps, marshes with crude petroleum in large quantities. Violations are penalized with a fine of from 1 to 25 colones. The establishment of a crematory is indispensable, in order to suppress infectious foci located in the dumping place on the muddy shores of the creek at the outlet of the Limon River, very near the city.

The sale of food products and beverages is almost monopolized by the Chinese. The majority of the articles of food are imported (preserved meats, canned or barrelled fish, condensed milk, lard, dried codfish, etc.), and the amount of adulterated and decomposed products that are seized is incalculable. The ingestion of these articles produces very frequently digestive disturbances which assume the nature of real intoxication; ptomaine poison adopts very acute special forms, including gastro-hepatic and septic-intestinal disturbances, and cholibacilosis in children. It is imperative that there should be established a laboratory for the analysis for the food products, beverages, and articles of consumption.

The campaign against the mosquito is most active in Limon; the physician of the city, Doctor Céspedes, is an indefatigable champion of hygiene, and an officer of great zeal; the sanitation of our ports and the Atlantic region is due in a great measure to his efforts. Doctor Cespedes recommends, with a radicalism that does him honor, that in no town where there is good and abundant water the existence of barrels, tanks, nor any other kind of water receptacle, whether it be covered or uncovered, should be consented to. He also advises the suppression of canals in the roofs of houses, because they are simply breeding places of mosquitoes, which seek refuge therein; or in privies full of water, ponds, and holes of trees, when they are expelled from other places. The procedure used in Limon for the extermination of mosquitoes has been that of fumigating sulphur with the Clayton apparatus, which, according to Doctor Céspedes, gives brilliant results. The fumigation with camphorated fenol has hardly any effect on mosquitoes. In rooms they employ sulphur burnt

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in caldrons, in a proportion of two pounds per 1,000 cubic feet. The *stegomya calopus* prevails, and the *anopheles albipes* holds second place.

The plan for protection on land against the yellow fever has consisted lately of keeping a census of the non-immune; inspection of places where it is located; the maintenance of a constant surveillance over non-immune patients, who are isolated in the hospital immediately after the appearance of the first symptoms of continuous fever. Persons taken sick in hotels, inns, or lodging houses must be reported to the health authorities by the owners of such establishments, under penalty of fine. The principal object in view is, however, the greatest possible destruction of breeding places of *stegomya*.

There are other problems of great importance to the health of Limon, such as the excessive death rate in children, malaria, ankylostomiasis, and tuberculosis.

Malaria does great havoc in towns and in the fields. Seventy per cent of the patients are hematozoic. One-third of the mortality in Limon occurs among children, especially among the colored ones.

The number of patients and deaths of tuberculosis increases every year, and if it is not duly fought it will soon reach the rate of malaria (35 during the last ten months.)

Fifty per cent of the patients treated in the hospitals show in their feces different evolutive formations of the ankylostomiasis parasite.

Limon requires strict surveillance in the inspection and registration of vessels, and the maritime hygiene is thus effected. The port is in constant communication with those on the Caribbean Sea, Colon, Cartagena, Puerto Cabello, Sabanilla, La Guaira, Havana, Puerto Cortes, Puerto Barrios, etc.; no less than six hundred vessels enter this port every year, and its general traffic increases very rapidly.

The quarantine service in Limon should be improved in accordance with the resolutions passed by previous Sanitary Conferences.

We beg to submit with this report special annexes in regard to projects for a quarantine station in Uvita Island, and to the sanitation of Limon in general.

IV.

DATA IN REGARD TO THE REGISTRATION OF THE MOVEMENT OF POPULATION AND OF THE DEATH RATE IN THE COUNTRY, WITH SPECIAL REFERENCE TO PORTS AND CITIES.

We have attached to the present report several statistical tables relating to population and mortality, with the details prescribed by the provisional programme; and we have extracted some figures from them, animated by the desire of furnishing the most complete information in regard to this interesting question.

It should be stated beforehand, that, as regards demography, we lack, on account of the difficulties due to a poor organization, a really scientific basis that would enable us to obtain exact statistics of the prevailing diseases, those causing the greatest number of deaths in the different cities of the Republic; this is due to the fact that there is no law compelling the registration of deaths and the real causes thereof. In many places where there are no physicians the diagnosis is made by quacks who only make mention of symptoms, common to different diseases; this, naturally, causes confusion and upsets the mortality statistics.

During a period of nine years, from 1901 to 1909, the general average of mortality has been 25.3 per thousand inhabitants; the lowest figure belongs to 1904, 22.94 per thousand; and the highest, to 1905, 27.78 per thousand. In the three following years the death rate ranged between 25.18 and 25.98; and from January 1st to September 30th of the present year—basing the estimate upon population of 361,779 inhabitants, fixed for December 31, 1908, with a possible increase of 33⅓ per cent—the average mortality was 24.88 per thousand. Therefore, the average death rate in 1908 and 1909 is 25.44 per thousand in the entire Republic.

The number of births registered from January 1, 1901, to September 30, 1909, was of 114,348, and that of deaths registered during the same period was 73,179, the country having lost in 1905 and 1909 more than 9,000 inhabitants annually; over 8,000 in each of the years 1901, 1906, and 1907; over 7,000 annually in 1902, 1903, and 1904; and 6,753 during the present year.

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In regard to births, we have to state that the statistics include only those that appear in the auxiliary civil registers, and that, in fact, the figures are not absolutely correct, because not all parents comply with the duty of registering the births of their children, as the law ordains.

Specifying these statistics, we see that, during the said period of nine years, the death rate is distributed among the Provinces of the Republic as follows (statistics of 1908):

1.	Limon	42.48	per 1,000
2.	Cartago	31.39	"
3.	San José	26.49	"
4.	Puntarenas	26.48	"
5.	Heredia	22.57	"
6.	Alajuela	22.35	"
7.	Guanacaste	19.97	"

The highest death rate in the Republic is that of the Port of Limon, and the lowest that of the City of Cartago, 12.62 per thousand in the first nine months of the present year, after the water-supply system had been improved and its perfect sewer system had been opened to public service.

The causes of mortality in the country, according to the international specification (Bertillon system of 14 groups), was in 1908 as follows:

Among children under five years the diseases of the digestive apparatus amount to 1,857 deaths, out of a total of 5,426, of which 682 belong to the Province of San José, and 426 to that of Alajuela. Undefined diseases were credited with 1,232 deaths; diseases of the nervous system or of the organs of sense, 1,813; general diseases, 709; diseases of the respiratory apparatus, 452.

Among persons over five years, out of a total of 3,698 deaths, 1,326 were of general diseases; 610 of undefined; 597 of the digestive apparatus, and 307 of the respiratory apparatus. The highest figures always belong to the Provinces of San José and Alajuela.

Infantile mortality is distributed as follows:

San José	1,681
Alajuela	1,073
Cartago	1,065
Heredia	481
Guanacaste	293
Puntarenas	204
Limon	200
Total	4,997

Of this total the greatest proportion is among children between one and two years of age, of which 1,212 died. Of children under one month, 991 died.

The mortality statistics, according to the international classification, as well as the infantile, for the present year, are still in course of preparation, for which reason we are unable to include them here.

Nevertheless, reverting to the special causes of mortality, recorded in the registers of the General Bureau statistics, we will make a sketch of the conditions of the country in regard to the commonest of those diseases, confining ourselves to the period elapsed between January 1, 1908, and October 31, 1909.

These statistics are classified as follows, with reference to the entire Republic (estimated upon a population of nearly 400,000 inhabitants):

	1908	1909	Total
Pulmonary tuberculosis	357	252	609
Typhoid fever	78	72	150
Dysentery	375	323	698
Whooping cough	137	152	289
Measles	232	22	254
Malaria	189	139	328
Infantile cholera	376	351	727
Intestinal parasites	677	620	1,297
Infantile epilepsy	488	427	915
Cancerous diseases	154	108	262

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In the figures for convulsion of children, abstract average used by the Bureau for statistics and based by necessity upon certificates of death issued by quacks, the following diseases, which present convulsions as a characteristic sign, may be understood as including: tubercular meningitis, typhoid fever, intestinal parasites, and eclampsia.

In accordance with the preceding table the category of typical Costa Rican diseases, by reason of mortality, is as follows:

I. Intestinal parasites.
II. Infantile epilepsy.
III. Infantile cholera.
IV. Dysentery.
V. Pulmonary tuberculosis.
VI. Malaria.
VII. Whooping cough.
VIII. Cancerous diseases.
IX. Measles.
X. Typhoid fever.

Intestinal parasites cause in our country two deaths per day; dysentery kills one person every day.

But what really causes horror is the mortality in children. *Fourteen* children die each day, that is to say, one every two hours; or 5,000 per year, on account of the ignorance of the quack, the poor quality of water in small towns, poor food, and the carelessness in properly attiring the children.

Dr. Benjamin de Cespedes published not long ago a book on the hygiene of children in Costa Rica, which was awarded a prize in a scientific competition by our Faculty of Medicine and Surgery.

Unfortunately, the lessons contained in that book have not been grasped by the people, notwithstanding the fact that its language is simple and easily understood; it seems that it is doomed to oblivion.

Infantile mortality is the gravest of problems that the country has to confront; and the efforts exerted for the protection of children in our soil, however great they may be, will never reach the magnitude required by this constant and awe-inspiring danger of infantile mortality, which, hour after hour, snatches away from the country precious energies, incessantly shattering to pieces our hopes for the future.

Another paper bearing directly on this subject, and generally on the highest interests of public hygiene, is that published by Dr. Gerardo Jimenez and Engineer Dr. Enrique Jimenez Nuñez, entitled "Hygiene of Houses and of Water in Costa Rica." This work was awarded a prize in a competition given by the same faculty of medicine, and it is destined to render useful service in the cause of public health, when the principles that it contains are put into practice.

In 1908 there were 429 still-births.

There are two diseases of which we have no knowledge in Costa Rica, to wit: Rabies and hydatic cysts of the liver. As both of them are caused by the bite or toxic secretions of dogs, it would be wise to prohibit the introduction of foreign dogs or to submit them to a rigorous quarantine before being admitted into the country.

There are isolated cases of diphtheria, the death rate of which is reduced to a minimum, thanks to the efficacy of the anti-diphtheric serum generally used. During the first ten months of the present year only three mortal cases were reported.

V.—Sanitation of Cities and Specially of Ports.

Although the program confines this subject to the sanitation of cities and ports, we have deemed it wise to offer to the Conference a few details regarding the general health of the country, so that the delegates may have an idea of the hygienic condition of Costa Rica from every point of view.

The climate of our country is mild and healthful; the mean temperature varies from 23° to 26° centigrade during the normal course of the year; this temperature descends in the months from November to March, which are the most brilliant season of nature, and during which the crops of coffee and other grains are gathered. It should be stated, however, that in no time do we experience too much cold nor too much heat, and that the rainy season extends from the month of May to the month of November in the central regions and in the Pacific zone, with some variation on the Caribbean coast.

As a matter of fact, ravaging epidemics are not the rule in our country. The day shall come when we shall be totally free from calamities of this

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sort, and it is our supreme duty to impress hygienic habits upon the people, and to found the absolute prominence of hygienic science upon a solid basis, in order to co-operate with nature, which affords us all the resources of life and the most ample facilities in the struggle therefor, in climatic advantages, in the fertility of our soil, and in the spirit of peace and labor which is characteristic of our inhabitants.

We must improve our sanitary conditions in order to make of Costa Rica a center for tourists, and a small tropical paradise. In this particular we will take the liberty to make a brief historical interview for the sake of argument.

Many years ago the country was invaded by terrible diseases, such as leprosy, smallpox, cholera, and yellow fever.

Leprosy was imported into the country about the middle of the eighteenth century, and it was actively fought by Governor Tomas de Acosta, one of our greatest benefactors. With very few exceptions, the lepers of the country are confined in the "Las Mercedes" Asylum, and it can be said that this disease does not constitute a public danger, thanks to the activity displayed in isolating persons infected therewith. Smallpox caused enormous ravages during the colonial period. Vaccine was first introduced into our country in 1805, and we kept ourselves free from this epidemic scourge until 1831, when there occurred a small epidemic; this was followed by the ones of 1845 and 1852 in which the disease assumed alarming proportions, a fact that shows a relaxed activity in periodical vaccination. From the latter date on we have only had small invasions, the last taking place in 1891; and we can say that, during the last twenty years, smallpox has not caused any loss of lives in the country, and that we need not fear unexpected contamination because vaccination is carried on constantly; so much so that Costa Rica may be considered as one of the countries where vaccination is general. We have never had in the country any anti-vaccination league; vaccination is compulsory, and is effected without any resistance on the part of the people, who, we can affirm, appreciate and accept this important discovery.

Cholera holds a prominent place among the old agencies of mortality in the Republic. The European epidemic of 1832, which reached the United States, Mexico, and Martinique, as was stated at that time in our official documents, was the reason for the initiation of an energetic campaign, due to which the country kept itself free from infection; the epidemic of 1837 that ravaged Nicaragua gave rise to the establishment of a sanitary cordon by means of which we were able to prevent its introduction into our country; but, on account of the Central-American wars of 1856, which took place in the neighboring Republic, and in which our army participated, an epidemic of cholera, prevailing in some town of that country, spread rapidly among the troops, precipitating the return of our soldiers, who brought the terrible disease into Costa Rican soil. The number of victims was over 10,000; that is to say, one-fifteenth of the total population then, more or less, but this fatal contribution has been the only one that we have paid to that dreaded calamity. The European epidemics of 1865, 1884, and 1890-1893 did not cause us any damage, thanks to the activity of the public authorities in putting in force the preventive measures adopted in each case.

Yellow fever made its first appearance in 1853, in the Port of Puntarenas. In 1860, it took an epidemic character; the same was the case in 1869, but with a greater damage. The next epidemics took place in 1881, 1892, 1895 and 1899; at the beginning of the new century the disease became endemic and gradually decreased with the application of the principles and methods of modern prophylaxis. Since 1903, that is to say, six years ago, yellow fever, we can affirm with certainty, does not exist in the Pacific littoral. In this connection it is our duty to pay tribute to the memory of Dr. Manuel Aguilar, town physician of Puntarenas, to whose efforts are due in a great measure the brilliant success of the systematic sanitation of that port, which today affords public health the safest guarantee.

The port of Limon was mercilessly ravaged by yellow fever during many years, until the advancement, the sanitation works, the drainage of the swamps, the sanitation of unhealthful zones and the wholesale destruction of the *Stegomya Calopus* mosquito gave it the place of confidence that it deserves in the roll of the progress of the country. After 1903 only five cases of yellow fever were reported in different places of the Province and three in the port and

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city of Limon, in 1906, of unknown origin, despite the strict surveillance exercised by the health authorities, among whom mention should be made of Dr. Benjamin de Céspedes, the town physician, who has been an indefatigable laborer of hygiene in the Atlantic region. Finally, in August, 1907, there were two sporadic cases of the disease in the Province, the first of which was imported by an Italian immigrant; since then no new cases have been reported.

Elsewhere in this report we dwell at length upon the sanitary condition of our two principal ports; and before closing this paragraph, we believe it opportune to state, with regard to yellow fever, that in 1899 an epidemic took place in the city of Alajuela, 1,000 meters above the level of the sea, receiving the infection from Puntarenas; of over one hundred patients no less than one-third died, and the Government spent 72,000 colones to fight the epidemic.

Other diseases have held a place of preference in the annals of our mortality, such as infectious fevers; generalized and multiform malaria; dysentery, due to the poor quality of water; whooping cough, which appeared about the beginning of the last century; scarlet fever, which dates from 1865; typhoid fever; endemic influenza, and diphtheria, which, since the introduction of antitoxic serum, produces very few deaths, and these are due to the lack of opportune medical assistance.

As the sphere of action of hygiene is widened by general education, sanitary propaganda and stringent health measures, the aforementioned diseases decrease rapidly in the different towns of the country.

The previous administrations, and the present one especially, have always interested themselves in the problem of our hygiene. On the other hand, the party that won the last elections has pledged its support to the work inspired by these Conferences, according to Article XX of its political programme, which says: "In the interests of public health to appoint town physicians wherever necessary; * * * to combat mortality in an efficient manner; to encourage and support popular conferences on hygiene, and the publication of pamphlets and circulars dealing with the same subject and distributed gratis; and to prepare and publish a Costa-Rican Sanitary Code."

The President of the Republic, Señor Cleto Gonzalez Viquez, made the following statement in his inaugural speech of May 8, 1906:

"Not only shall the Government interest itself in moral hygiene, but it shall, also, with the same eagerness and energy, see to it that the public health and the hygiene of towns and settlements are carefully looked after. It is true that so vital a duty should mostly fall on the municipalities, but, as a general rule, they lack the indispensable material means for the realization of the water, sewer, disinfection and other works of a similar nature. The Government is ready to render those corporations all the help within its power. A neglected hygiene injures the whole country in an incalculable manner. Its immediate consequence must necessarily be decrease in population and diminution of wealth."

In pursuance of these ideas, works of extreme usefulness have been realized in the country under the auspices of the present political régime, and it is just to take them into consideration on account of the progress that they have secured for our public health.

In the first place, the new water and sewer works of this capital have always received the constant attention of the Government, and on the 6th of October last a contract for the construction thereof was entered into between the sanitation board of San José, in behalf of the municipality and a national company, and approved on the 19th of November last by the Executive Power; this contract, which has already been carried out, provides for the utilization of five springs of excellent water, and its transportation to the city by means of cast-iron, vitrified clay or cement tubes; the distribution of the water in the pipe system, which will have to be improved for the purpose; the construction of a complete sewer system with three purifying plants and the respective discharge outlets. The principal sewers will be 28,500 meters in length and will have 410 inspection chambers, 100 washing chambers and connections, and 10,970 meters of secondary pipes for the connection of house sewers. The percolating filters will be 6,200 square meters at least. The waterworks must be completed on July 31, 1912, and their total value is 520,000 dollars.

Within two years, when the capital will be provided with excellent drinking water and good sewers, it shall be free from the infections due to their deficiency, and many of the calamities afflicting its inhabitants will then disappear with

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the consequent decrease in the death rate, as has been the case in other cities under similar conditions. According to the statistical estimate made by Señor Gonzalez Viquez, in 1905, the death rate in the City of San José was, in general, 35.78 per 1,000 inhabitants; deducting the number of still-births it was 33.22, and deducting the deaths occurred in hospitals among persons from abroad, it was 28.10 per 1,000. These figures, at the end of ten years from their date, may serve as a basis to establish the necessary differences consequent to the improvement of the water system and the construction of sewers; besides, such differences will be in the future a convincing argument in favor of public hygiene.

The second work to which we refer has already been completed, and that is the construction of sewers and the enlargement of the water system in the city of Cartago by virtue of a municipal contract, approved by the Executive Power in a resolution of September 3, 1906. This work, the first of its kind perfectly completed in the country, cost 140,000 colones, and was executed within eighteen months.

A resolution of January 8, 1907, approved the contract of the municipality of Limon for the construction of the sewer system in that port, according to the plans of Engineer T. H. Barnes, at a cost of 157,000 colones, and within a period of eighteen months. In due time the system was opened to the public service.

Before the present administration was inaugurated there had been built ten water-supply systems, of which five were provided with water of poor quality, three with good water, one with fairly good water, and one with excellent water.

In the construction of water systems they only had in mind the adduction of the liquid, without paying any attention to its potable condition, nor to any other requirements.

In the new waterworks, built since May, 1906, careful attention has been given to hygiene, sacrificing many times the quantity to the good quality of the water, and, above all, care has been taken to ensure the possibility of infection of the water and its purity.

The administration of President Gonzalez Viquez is accredited with the construction of 23 water-supply systems, of which 14 have excellent water, 6 good water, and 3 inferior water, which will be changed as soon as the waterworks in the capital shall have been completed. They are all provided with pipe lines.

Besides, plans and specifications have been prepared for seven additional water-supply systems.

In the construction of waterworks that have been completed, and in the preparation of plans, special care has been taken with regard to the physical condition of the water and its chemical analysis; no bacteriological analysis was done on account of the lack of adequate elements.

Generally, the projects make provision to furnish a volume of 250 liters daily per inhabitant, for twice the actual population.

In our judgment, these references have great hygienic importance for Costa Rica, and for this reason we make mention of them.

The present budget contains an appropriation of 151,043 colones for the expenses of public hygiene, in charge of the Department of Police. Among those expenses are the salaries of town physicians, 40 in number, each having a circuit under his jurisdiction.

As often as necessary the Government imports at its own expense the following serums: antitetanic, antipoisonous, antitreptococcic, antidiphtheric, antiplague, vaccine, antravoids and Slav anticarbonous.

Special mention should be made in this chapter of the Liquor Law in force, enacted with the purpose of restricting the use of alcoholic beverages and of fighting alcoholism, a vice which produces so many moral and physiological damages to society.

Quackery is actively fought, and it is now reduced to very narrow limits; morphinism is also energetically opposed and punished with severe penalties of imprisonment or confinement in an adequate establishment; the public streets and sewers are under the constant surveillance of the health authorities, who have free access to houses; public parks and gardens are methodically built, and all industries which may become foci of infection or which may injure the atmosphere are ordered away from the centers of population; in cases of

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contagious diseases the houses and patients are absolutley isolated; the authorities supervise the sale of foodstuffs, the cleaning of towns, the removal of organic refuse; medicines are distributed among the poor; prostitution is regulated for the purpose of preventing the propagation of venereal diseases, while the special law of venereal prophylaxis—the work of Dr. J. J. Ulloa when Minister of the Interior from 1894 to 1898—is again put in force, as its operation was suspended partially on account of lack of funds necessary for the maintenance of the prophylaxis service required by said law.

The courses of public instruction include the teaching of the practical principles of hygiene, and, considering the wide range of education in the country, it is to be hoped that the new generation will be fully equipped to undertake the redeeming work of sanitation in all its aspcts, conscientiously and without discouragement. Costa Rica invests to-day in the Department of Public Instruction the annual sum of 1,271,935.64 colones, out of seven million of its total fiscal expenses.

We live, therefore, under the promise of a future sanitary welfare; and upon ourselves depends the realization of the ideals expressed by the old motto of our sisters, in the coat of arms of our rising country: "Libre crezca, y fecundo."

During 1908 and 1909 the Republic has been free from serious epidemics.

During the fiscal year of 1907-08, on account of the increase of ankylostomiasis, the Government appointed a Medical Commission to study said disease, to visit the infected districts and to attend the patients.

The Commission, composed of Doctors Luis P. Jimenez and Federico Carlos Alvarado, treated more than 5,000 cases, and submitted the interesting report hereto annexed.

At the same time, Doctor Mauro Fernandez wrote a pamphlet for the scientific popularization of the causes of ankylostomiasis and manner of preventing infection; by order of the Government that paper was printed and widely distributed.

It being directly related to public hygiene, we will mention the appearance of the epizooty called carbuncle or antrax, which occurred in the beginning of last year in the southern section of the capital.

In order to fight the epidemic proper measures were enacted, and cattle for consumption was thoroughly inspected; the necessary serum for the cure of the disease was imported; a special veterinary was engaged in the United States, and is still rendering his services at the expense of the Government, although the disease has gradually disappeared. A pamphlet on the description and treatment of the disease was distributed by order of the Department of Police.

Below we will enumerate, by order of importance, the diseases that prevailed in the country during the last year and the current one; this data may be considered as having unlimited retrospective action, as said diseases are characteristic of Costa Rica, and they shall continue to be so long as no energetic and decisive measures are taken to counteract their effects, to reduce their sphere of action, to exterminate the different causes leading to them, and to annihilate their incalculable pathologic power by means of systematic hygienization.

Diseases of the digestive apparatus; intestinal diseases proper, and specially intestinal parasites. In regard to these diseases we will say that Doctor Carlos Pupo found in one single sample of fecal matter eggs of tricocephalus, ascarides, oxiuros, ankylostomiasis, tape-worm, and also intestinal balantides and worms. Drinking water, in general, contains a great quantity of algæ and amœba. Intestinal parasites cause an enormous mortality in children.

Dysentery.—In the city of San José alone there were more than 300 cases from May, 1907, to February, 1908; and a similar proportion is continuously noticed in the rest of the country (700 during the last two years).

Malaria.—This disease appears under all its known forms, throughout the different regions of the country, and is endemic in all seasons of the year.

Measles.—Since some time ago small epidemics appear every year.

Whooping cough.—The death rate caused by this disease is excessive; it persists in a latent form and travels throughout the country entirely acquainted with the inhabitants, who, being used to it, no longer dread it as they did the epidemic of 1893.

Tuberculosis.—Its propagation is continuously increasing; its attacks are sure and its activity unceasing. From May, 1907, to February, 1908, there were

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in the capital alone 255 cases subjected to medical treatment and 46 certified deaths. Tuberculosis causes in Costa Rica one victim every twenty-four hours. In case of death the rooms are disinfected with sulphurous gas and formaline and the clothing and other dangerous articles of personal use are cremated. Due praise should be made of the action of the sanitary authorities in the Canton of Goicoechea, San José Province, who placed posters with preventive and prophylactic directions in the parochial church of the town of Guadalupe; this example should be unanimously followed in the rest of the country. As an urgent measure, the creation of a sanatorium for consumptives is imperative. A few years ago an antituberculosis league was founded, but it had to be closed through lack of spirit of appreciation and of private initiative, and it is necessary to re-establish the same under the auspices of the Government.

Influenza.—It is almost epidemic, especially since the latter part of 1907. It presents a great number of broncho-pulmonar complications.

Ankylostomiasis.—We have already referred to this national calamity, which represents an enormous loss of energy in the country.

Typhoid fever.—In Grecia it appeared under an epidemic form in the latter part of 1907, and it subsided in consequence of the construction of a good water-supply system and of the prophylactic measures that were adopted. It ravages the whole country unceasingly, but it is noticeably decreasing with the advance of hygiene.

Varicella and Rubiola.—Local and almost inoffensive epidemics which have quickly disappeared and offer no greater difficulty.

Syphilis and Venereal Diseases.—A retrocession is noticed in this particular point on account of the suspension of the Law of Venereal Prophylaxis, the re-enactment of which is imperative, and which, at a former time, gave very satisfactory results; the census statistics show very rare exceptions of individuals who have not suffered from some disease of this kind before being twenty years old.

Mumps or Parotitis.—A general epidemic in the last two years, which increases with the rapid changes of temperature. In general, it has been of a mild character.

Such was, briefly told, the condition of public health in Costa Rica during the recess of the International Sanitary Conference of the American Republics. With the centralization of the Public Health Service and the unification of the laws relating thereto, by means of a national board of health and of a sanitary code, the present situation would be improved day by day.

We earnestly hope that our aspirations in the matter of hygiene will be realized in the very near future, for the honor and glory of the country and for the immediate benefit of humanity.

We dealt with the sanitation of our ports when we spoke of the sanitary conditions prevailing thereat. We have nothing to add in this special chapter of the program.

VI.—Charitable Institutions—Hospitals and Asylums.

Public beneficence in Costa Rica is duly maintained.

To succor the sick; to shelter poor children as well as old persons who on account of their age or feebleness are not in a position to work; to isolate those who, having lost their mind, constitute a public menace, or those who, still more unfortunate, with full possession of their minds, witness the destruction of their organism, such as is the case with the lepers, outcasts of society whose only protection is the Government; in a word, to exercise practically and efficiently the noble apostleship of human charity, have always been in this country matters which have received careful attention.

In the realization of this end the efforts of the Republic have been crowned with success to such an extent that in some cases, for instance, in the hospital for mental diseases, the Chapui Asylum, the results obtained are a just and legitimate motive for national pride.

Of course, it should be stated that, outside of the two charitable institutions founded by the Government—the said asylum and that of "Las Mercedes," for lepers—all the other charitable institutions of Costa Rica owe their creation and maintenance to private initiative exclusively.

This is a most eloquent fact and worthy of the greatest attention, as it speaks very highly for the excellence of sentiments characteristic of our people, and

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which secures for the country a place of honor among the altruistic communities of the earth.

It should, likewise, be noticed that municipal action has never contributed to the foundation of an asylum or hospital; at most, the municipalities hardly assist in the maintenance of such charitable institutions.

In some cases, and of them we have more than one example, philanthropic establishments, founded by private initiative and through the efforts of some great social benefactor, find themselves without sufficient resources to meet their necessities. It is customary in such events for the Government to help, even though not as liberally as desirable, at least with the promptness and sufficiency necessary to cover the deficiency.

The fiscal budget appropriates the sum of 94,552 colones for charitable purposes, and besides this sum other expenses of this kind are made by different departments, and special laws provide for the lofty aims of national charity.

It is the public spirit, however, that carries the burden of the work; and in doing so it fulfills spontaneously the Christian ideals which are the inspiration of its actions.

In his last annual message to Congress the President of the Republic said: "The number and importance of charitable establishments being, as they are, sufficiently considerable, it would be advisable to take under consideration the creation of a Department of Public Beneficence, with central, provincial and cantonal bureaus, under adequate regulations, taking advantage for that purpose of the co-operation of charitable societies and of citizens and foreigners who sympathize with the suffering masses."

The necessity pointed out by the President is really a peremptory one. The boards of charity operate with absolute independence throughout the country, but if their services were regulated an immediate profit would be derived from harmonizing the charitable work in their different details, thus rendering philanthropic protection more fruitful and uniform, through the agency of an organic center having supervision over all charitable enterprises, to the benefit of the community and of the needy.

There are four asylums in the country, to wit: The Chapui Asylum, the Alms House, the Leper Asylum and the Children's Asylum. There are, besides, one hospice for orphans in the capital and two in the city of Cartago; and twelve hospitals in San José, Cartago, Alajuela, Heredia, Liberia, Limon, Puntarenas, San Ramon, Grecia and Las Cañas.

The total number of persons attended by these institutions during 1908 was 8,000, at a total expense of 600,000 colones. The Hospital of San Juan de Dios alone attended 2,000 individuals; a similar number was treated in the hospitals at Limon.

The first charitable establishment founded in the country was the lazaretto, in 1833, whose capital, together with that of a general hospital in project, was 4,500 colones. This sum was made up of municipal and private voluntary contributions. In 1885 the lazaretto was definitely built in the neighborhood of the capital, to the west, and near the Savana de Mata Redonda.

In the month of May, 1908, the lepers lodged in the lazaretto were removed to the new Asylum of Las Mercedes, which has a capacity for 125 beds and has all the hygienic requisites needed in an institute of this kind.

In 1845 a project was made for the foundation of a general hospital of the state, to be supported by means of a lottery; but the scheme failed on account of the unpopularity of the means sought. It was only in 1852 when the building for the Hospital of San Juan de Dios was constructed, but it had to be closed in 1861 on account of lack of funds. On May 8, 1863, it was reopened, and the Sisterhood of Charity was organized, just as it now stands; the institute was placed under the control of a governing board which drafted the charter and regulations that, with slight amendments, still govern it. In the course of its existence it has received large donations and legacies from private persons; one of the most noticeable which was that given by Presbyter José Cecilio Umaña, whose name is recorded in the annals of the national beneficence. In 1872 important improvements were made in the building of the institution and its interior administration was entrusted to the Sisters of Charity. In 1881 an interne physician was appointed and a division of statistics of diseases was created. In 1888 the hospital was divided into two departments: medicine and surgery. Besides the subsidies that it receives from the Government, a

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percentage of the sale of railroad tickets is assigned to it. The provincial hospitals are also given a similar percentage.

In 1852, the same year when the San Juan de Dios Hospital was founded, the Hospital of San Rafael, in Puntarenas, was established; for a period of 28 consecutive years these were the only two establishments of their kind operating in the Republic.

In 1818 the Hospitals of Cartago and Liberia were opened to the public; in 1884, those of Alajuela and Limon; in 1888, that of Heredia; in 1891, those of Grecia and Palmares, the first villages that were provided with hospitals; in 1895, that of Santa Cruz, and the rest in latter years.

In 1885 the Government donated the sum of 5,000 colones to the Board of Charity of San José for the establishment of an insane asylum, which was made a national institution; at the same time a monthly lottery for the support of this institution was authorized.

The National Hospital for the Insane was inaugurated on May 4, 1890, but its name was changed later to that of Chapui asylum, in honor of Presbyter Chapui, a great benefactor of our country. This asylum, during the first ten years of its existence, attended 740 patients with really remarkable results. At present the number of patients is about 300 annually. The hospice for incurables, now called Alms House, was founded in 1879 with private contributions.

Such is in brief the history of our principal charitable institutions.

In closing this report the Delegation of Costa Rica expresses its recognition of the services rendered by Señor Guillermo Vargas in the preparation thereof.

MORTAL CASES OF DIFFERENT DISEASES IN THE CITIES OF THE REPUBLIC FROM JANUARY 1ST TO OCTOBER 31, 1909.

San José.

Cancer	27	Diphtheria	2
Dysentery	41	Malaria	3
Tuberculosis	53	Bilious fever	0
Typhoid fever	12	Blackwater fever	1
Influenza	0	Pernicious fever	0
Malaria	4	Remittent fever	0
Whooping-cough	4	Measles	0

Alajuela.

Cancer	5	Diphtheria	1
Dysentery	11	Malaria	0
Tuberculosis	8	Bilious fever	0
Typhoid fever	6	Blackwater fever	0
Influenza	3	Pernicious fever	0
Malaria	2	Remittent fever	0
Whooping-cough	14	Measles	0

San Ramon.

Cancer	1	Diphtheria	0
Dysentery	4	Malaria	0
Tuberculosis	1	Bilious fever	0
Typhoid fever	1	Blackwater fever	0
Influenza	3	Pernicious fever	0
Malaria	1	Remittent fever	0
Whooping-cough	1	Measles	0

Grecia.

Cancer	1	Diphtheria	0
Dysentery	7	Malaria	0
Tuberculosis	2	Bilious fever	1
Typhoid fever	0	Blackwater fever	0
Influenza	2	Pernicious fever	0
Malaria	0	Remittent fever	0
Whooping-cough	6	Measles	0

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CARTAGO.

Cancer	2	Diphtheria	0
Dysentery	3	Malaria	0
Tuberculosis	2	Bilious fever	0
Typhoid fever	1	Blackwater fever	0
Influenza	0	Pernicious fever	0
Malaria	1	Remittent fever	0
Whooping-cough	1	Measles	0

HEREDIA.

Cancer	1	Diphtheria	0
Dysentery	9	Malaria	0
Tuberculosis	11	Bilious fever	0
Typhoid fever	2	Blackwater fever	0
Influenza	2	Pernicious fever	0
Malaria	3	Remittent fever	3
Whooping-cough	2	Measles	0

SANTO DOMINGO.

Cancer	2	Diphtheria	0
Dysentery	12	Malaria	0
Tuberculosis	8	Bilious fever	0
Typhoid fever	1	Blackwater fever	0
Influenza	1	Pernicious fever	0
Malaria	0	Remittent fever	0
Whooping-cough	1	Measles	0

LIBERIA.

Cancer	1	Diphtheria	0
Dysentery	7	Malaria	0
Tuberculosis	8	Bilious fever	0
Typhoid fever	0	Blackwater fever	0
Influenza	1	Pernicious fever	1
Malaria	14	Remittent fever	5
Whooping-cough	0	Measles	0

PUNTARENAS.

Cancer	0	Diphtheria	0
Dysentery	6	Malaria	1
Tuberculosis	12	Bilious fever	0
Typhoid fever	0	Blackwater fever	0
Influenza	0	Pernicious fever	1
Malaria	6	Remittent fever	0
Whooping-cough	3	Measles	1

ESPARTA.

Cancer	1	Diphtheria	0
Dysentery	2	Malaria	0
Tuberculosis	5	Bilious fever	1
Typhoid fever	0	Blackwater fever	0
Influenza	0	Pernicious fever	0
Malaria	1	Remittent fever	0
Whooping-cough	1	Measles	4

LIMON.

Cancer	1	Diphtheria	0
Dysentery	11	Malaria	12
Tuberculosis	25	Bilious fever	3
Typhoid fever	0	Blackwater fever	2
Influenza	0	Pernicious fever	0
Malaria	35	Remittent fever	0
Whooping-cough	0	Measles	0

NOTE.—What makes the death rate greater are the diseases of children, especially intestinal pasaites, infantile cholera and convulsions.

NATIONAL BUREAU OF STATISTICS,
SAN JOSÉ, December 15, 1909.

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SEVERAL MORTAL CAUSES IN THE CITIES OF THE REPUBLIC FROM JANUARY 1ST TO OCTOBER 31, 1909.

San José.

Enteritis	48	Parasites	40
Convulsions	15	Infantile cholera	28
Bronchitis	14	Gastro-enteritis	46
Broncho-pneumonia	16		

Alajuela and Districts of San José, Garita and Tuetal.

Enteritis	6	Convulsions	6
Parasites	24	Broncho-pneumonia	6
Infantile Cholera	18	Bronchitis	2
Gastro-enteritis	5		

San Ramon.

Gastro-enteritis	1	Enteritis	1
Parasites	7	Infantile cholera	3
Convulsions	1	Broncho-pneumonia	1

Grecia.

Parasites	8	Convulsions	2
Infantile cholera	7	Bronchitis	1

Cartago.

Parasites	4	Bronchitis	2
Infantile cholera	2	Broncho-pneumonia	1
Enteritis	3		

Heredia.

Gastro-enteritis	31	Broncho-pneumonia	7
Bronchitis	4	Parasites	4
Infantile cholera	8	Convulsions	1
Enteritis	12		

Santo Domingo.

Parasites	2	Enteritis	1
Infantile cholera	3	Bronchitis	2
Gastro-enteritis	7	Broncho-pneumonia	3
Convulsions	1		

Liberia.

Bronchitis	1

Puntarenas.

Bronchitis	1	Convulsions	6
Parasites	22	Gastro-enteritis	1
Broncho-pneumonia	4	Enteritis	4

Esparta.

Parasites	5	Infantile cholera	1

Limon.

Gastro-enteritis	15	Infantile cholera	1
Convulsions	1	Parasites	1
Enteritis	15	Bronchitis	5
Broncho-pneumonia	3		

National Bureau of Statistics,
San José, December 21, 1909.

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SEVERAL CAUSES OF MORTALITY, BY PROVINCES, 1908.

ADDITIONAL TABLE.

Diseases.	San José.	Alajuela.	Cartago.	Heredia.	Guanacaste.	Puntarenas.	Limón.	Totals.
Leprosy	2	0	1	0	0	0	0	3
Influenza	20	45	24	7	3	4	3	106
Diphtheria	00	00	00	00	1	00	00	1
Scarlet fever	00	1	00	36	0	00	00	1
Bronchitis	85	51	104	20	2	12	9	299
Bronco-pneumonia	73	8	19	34	4	1	6	131
Enteritis	98	15	76	108	2	6	19	250
Gastro-enteritis	105	25	19	00	00	4	8	269
Pernicious fever	2	00	00	1	1	4	8	15
Remittent fever	1	1	00	00	4	1	11	19
Yellow fever	1	00	00	00	00	00	1	2
Blackwater fever	2	5	1	00	00	00	3	11
Malaria	1	00	00	00	00	00	20	21

Diseases.	San José.	Alajuela.	Cartago.	Heredia.	Guanacaste.	Puntarenas.	Limón.	Totals.
Cancer	52	16	16	10	5	6	3	108
Dysentery	103	64	61	41	13	21	20	323
Tuberculosis	88	26	20	33	18	30	37	252
Typhoid fever	41	13	9	6	2	0	1	72
Influenza	12	23	15	10	3	3	1	67
Malaria	17	14	13	6	22	12	55	139
Whooping-cough	25	84	5	11	9	17	1	152
Diphtheria	2	1	0	0	0	00	0	3
Measles	5	3	0	1	0	13	0	22
Malaria	8	0	1	1	0	5	23	38
Blackwater fever	1	0	0	0	0	1	2	4
Yellow fever	1	0	1	0	0	0	00	2
Pernicious fever	00	0	1	0	3	2	4	10
Bilious fever	00	1	1	0	0	0	3	5
Remittent fever	00	1	1	4	6	0	3	15
Leprosy	2	0	1	0	1	2	0	6

NATIONAL BUREAU OF STATISTICS,
December 22, 1909.

CONCENTRATION BY PROVINCES, JANUARY 1ST TO OCTOBER 31, 1909.

Diseases.	San José.	Alajuela.	Cartago.	Heredia.	Guanacaste.	Puntarenas.	Limón.	Totals.
Convulsion of children	130	94	130	25	23	21	4	427
Bronchitis	75	47	108	37	4	2	7	280
Broncho-pneumonia	25	8	8	23	9	4	3	80
Parasites	227	191	64	38	32	66	2	620
Infantile cholera	142	128	47	31	00	2	1	351
Gastro-enteritis	80	11	10	88	1	1	16	207
Enteritis	93	18	52	41	17	9	17	247

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POPULATION OF THE REPUBLIC—BIRTHS, DEATHS, AND AVERAGE PER 1,000 FROM 1901 TO 1909.

Year.	Population.	Births.	Deaths.	Average per 1,000.
1900	307,499	.....	.....	.....
1901	312,819	11,387	8,151	26.57
1902	316,738	11,078	7,973	25.48
1903	322,618	11,613	7,291	23.01
1904	331,340	12,547	7,404	22.94
1905	334,297	12,594	9,205	27.78
1906	341,590	13,443	8,417	25.18
1907	351,176	14,762	8,861	25.94
1908	361,779	15,308	9,124	25.98
1909	.....	11,658	6,753	24.88

NATIONAL BUREAU OF STATISTICS,
SAN JOSÉ, December 11, 1909.

NOTES.—A. The year 1909 comprises only nine months, that is to say, from January 1st to September 30th. The averages per thousand have been estimated on the population up to December 31st of the previous year, and for 1909 that average was increased 33⅓ per cent in order to obtain the probable rate for the whole year.

Under the heading of "Births" only those inscribed in the Auxiliary Civil Registers are included and, therefore, the figures are very low, because not all the parents comply with the duty of notifying the birth of their children.

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REPORT OF DOCTOR HUGO ROBERTS, DELEGATE FROM CUBA.

Mr. President; Messrs. Delegates: In pursuance of the provisional program of the present Conference I have the honor to report that, since the Third Conference, held in Mexico in December, 1907, the sanitary laws and measures enacted in the Republic of Cuba, which I have the honor to represent, now in force, are, by chronological order, the following:

On October 20, 1908, the Provisional Governor of Cuba, Mr. Charles E. Magoon, issued Decree number 1024, establishing the basis for the drafting of regulations for the practice of pharmacy, sale of drugs and medical products, the preparation of pharmaceutical products and the preparation and sale of serums and substances for vaccination. These regulations are in force since the 18th of July last, and have taken the place of the Ordinances of Pharmacy which govern the practice of this profession since 1860; they have come to fill a necessity which was really felt, placing the practice of pharmacy in Cuba in accordance with the progress accomplished in that line, and establishing guaranties required in the practice of a profession so closely connected with the interests of public health. A decree was also promulgated enforcing the United States Pharmacopœia, 8th edition, translated into Spanish.

Since January 28, 1908, the Law of the Executive Power and the regulations for the management of the Executive Departments has also been enforced. By virtue of that law a Department of Health and Beneficence has been created; this branch was formerly under the Department of the Interior. The new department has been operating since that date with the most flattering of successes. The first to occupy the high position of Secretary of Health and Beneficence was Doctor Matias Duque y Perdomo, and after his resignation, in October of this year, Doctor Manuel Varona Suarez was appointed to succeed him. The Republic of Cuba has had the privilege of being the first nation in organizing an Executive Department of Health and Beneficence, an example which, in view of the good results that will be obtained, will soon be followed by other nations.

On July 1st of the present year the Legislature passed the Civil Service law, to establish and maintain an efficient honest Civil Service in all the departments of the Central Provincial and Municipal Government of the Republic, which law undoubtedly is very essential to the Health Service, leaving it free from political differences.

There has been organized under the Department of Health a bureau for the investigation and study of infectious diseases, provided with a naval personnel and with the necessary material elements, such as a special laboratory for its important mission. Its work will be published in "Health and Beneficence," the official bulletin of the department, the publication of which was commenced last April and which constitutes one of the most important works of the new department.

By presidential decree of July 19th last the cleaning of streets, the collection and disposal of garbage, and the disinfection of sewers and canals of the city of Havana, which were under the Department of Public Works, have been transferred to that of Health and Beneficence.

In the Insane Asylum of Mazorra there has been established a special school for nurses, the professors of which are nurses who have been expressly engaged in England. In connection with the Tuberculosis Dispensary there is also a school for nurses, specialists in the treatment of consumptives; these nurses not only are on duty in the Dispensary, but also visit the homes of poor consumptives; they are under the supervision of the physicians in charge of the Dispensary.

The eradication of tuberculosis is one of the principal aims of the new department; besides the Sanatorium of La Esperanza, established at a proper place within ten kilometers from Havana, others will be established in different places of the Republic, the creation of which is under consideration, as well as other measures tending to diminish the ravages of tuberculosis, preventing its propagation.

The Municipality of Havana has recently opened the Emergency Hospital, for the immediate attendance of wounds, injuries, accidents, etc., before the patients are taken to their homes or to some other hospital.

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There is under the Department of Health a Bureau of Sanitary Engineering, with jurisdiction over all the Republic.

The Department of Health being aware of the great benefit that might be derived from instructing the people in regard to contagious and preventable diseases, it has also directed its attention toward that end; and by means of popular pamphlets, couched in simple terms, it has informed the people as to what tuberculosis is; how the infection is effected; how a person is protected against tuberculosis; what to do when a person is in danger of contracting the disease, and what conduct should be followed by patients in order not to infect those near them. The Dispensary for lung diseases, where medical advice and medicines are given free, and the league against tuberculosis render a most valuable co-operation in the active campaign that is waged in Cuba against this disease.

Tuberculosis is not the only disease in regard to which the Government is trying to teach the people to prevent. The people are also instructed in regard to other preventable diseases, for which purpose pamphlets have been issued containing popular instructions regarding the procedure to be followed to prevent the infection of typhoid fever, scarlet fever, etc. The Official Bulletin of the Department of Health, to which I have just referred, contains, not only sanitary and demographic statistics and weather reports, but also scienific papers by foreign and Cuban professors. I have the honor to annex herewith the publications to which I have referred, for the information of my distinguished colleagues.

I beg to inform you that the sanitary conditions of our interior cities and ports are excellent. The resolutions passed by the three previous Conferences have been enforced and health officers have been instructed to comply with them. Not only have we prevented the introduction of yellow fever, plague, cholera, etc., but also succeeded in eradicating a long time ago the breaking out of yellow fever epidemics initiated in Cuba in 1905.

A no less remarkable triumph was that achieved over smallpox; this universal disease, which reached Cuba through a thousand different ways, is unknown to our young physicians, because not one single case has appeared in Cuba during the last ten years, if exception be made of cases treated at our quarantine stations that arrive from abroad.

For the purpose of improving sanitary conditions in the Republic, there are under construction in different cities dredging, water supply and sewer works, among which special mention should be made of the sewer system of the city of Havana, the cost of which is estimated at $16,000,000, and which was initiated three months ago.

The success of the efforts constantly exerted by the Department of Health for the betterment of public hygiene could not be appreciated unless there were tangible facts to show it; and as an apotheosis of such facts, we submit our rate of mortality. During the first six months of the present year our average death rate has ranged between 12 and 14.44 per thousand annually, a figure which by itself is sufficient to place the Cuban Republic among the healthiest nations in the world.

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REPORT OF DOCTOR ALFONSO QUIÑONES, DELEGATE FROM EL SALVADOR.

Mr. President: Messrs. Delegates: In accordance with the program adopted for this Conference, I beg to submit the following report in behalf of the Government of Salvador, which has honored me with its representation before this learned Assembly.

I.

The Government as well as the Superior Board of Health have enacted measures of different kinds in order to comply with the stipulations of the three previous Conventions, the enumeration of which provisions would be long; the most important ones I shall have occasion to cite in the course of the present report. I beg the Conference to glance over the "Bulletin of the Superior Council of Health," of which I submit the collections for 1908 and 1909, wherein the delegates will find the monthly résumé of the provisions enacted by said corporations as the body intrusted with the supreme control of the public health, and in compliance with the requirements of the Sanitary Code, of which I also submit two copies. It has been in force since 1900.

I also beg to present pamphlets containing the hygienic regulations for railroads, tramways, street railways, omnibuses and funeral coaches; for hotels, bars, confectioneries, etc.; for venereal prophylaxis; the provisions of Title III of the Sanitary Code, which establishes medical statistics; the inspection of barber shops, unhealthy premises, and schools. Such regulations were issued by the Executive Power on different dates, and they contained provisions adequate to each case and in conformity to the special services of the country.

Together with the said publications, I beg to submit several pamphlets, written in simple language, containing instructions for the prevention of infecto-contagious diseases; the following publications are also annexed thereto:

Directions for carrying out the disinfection prescribed by the Superior Council of Health of France; Directions for the prevention of yellow fever, malaria or intermittent fever; Rules to be observed by famlies in cases of infecto-contagious diseases; Preventive measures against diphtheria; The teeth; For our children when they are eighteen years old; Bubonic plague; Popular instructions regarding tuberculosis; Adventures of a Koch bacillus; Catechism against tuberculosis; First stage of Pulmonary tuberculosis.

II.

VACCINATION AND SMALLPOX.

Many of the general measures above stated are applicable to the ports of Acajutla, La Libertad, and La Union, the principal ones in the country. In these ports, as is the case with all Central-American coasts, malaria is the predominating disease. The works of efficient sanitation will cost fabulous sums and it would be even materially impossible to carry them out so long as there exist the virgin forests surrounding them, which are the great breeding place of all sorts of mosquitoes. However, in Acajutla, the most important port, it being connected by rail with the capital, there is under conservation the introduction of drinking water and we are about to complete the drainage and filling in of the large swamps surrounding the town, by means of the dredging of the port; and other important work which will soon be finished in the same port is that of the deviation of the river, whose floods are frequent.

Since 1907 there has not been in the said port any other kind of epidemic nor of special diseases.

III.

According to the latest statistics, the population of Salvador is 1,070,555 inhabitants; the area of the country being approximately 34,000 square kilometers the density of population would be 31.48 per kilometer, and Salvador is, therefore, one of the most densely populated countries in the world.

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In tables No. 2 and 3 are the proportions of births and deaths for the years 1907 and 1908. The résumé of these tables is as follows:

1907.

	Men.	Women.	Totals.
Births	22,561	21,660	44,221
Deaths	12,939	11,502	24,441
Increase of population			19,880

1908.

	Men.	Women.	Totals.
Births	24,336	23,255	47,591
Deaths	12,544	12,147	24,691
Increase of population			22,900

The general death rate is, therefore, 23 per cent for the whole country, according to the Civil Register for the city of San Salvador; the death rate during the years from 1895 to 1908 is as follows:

	Per cent.
1895	36.9
1896	40
1897	41.1
1898	32.5
1899	40.7
1900	29.9
1901	23.2
1902	30.9
1903	30.9
1904	27.7
1905	26
1906	21.1
1907	26.6
1908	24.7

The death rate in some cities, together with the number of inhabitants of each, is as follows:

Towns.	Population.	Death rate per cent.
Acajutla	1,200	54
Sonsonate	16,752	35
La Union	3,984	31
San Salvador	57,024	27.7
Jiquilisco	3,624	26
La Libertad	2,613	26
Anuachapan	19,320	25
Santo Ana	53,024	23
Santa Tecla	17,640	22.7
Zacatecoluca	19,488	22
Apaneca	3,788	22
San Vicente	20,026	20
Chalatenango	8,064	20
San Miguel	22,448	20
Cojutepeque	14,184	16
Sensuntepeque	11,216	16
Jucuapa	9,360	13
San Francisco Morazan	5,640	10

(Statistics of 1905.)

Doctor Pedro S. Fonseca, Municipal Engineer of the capital, is about to publish The Statistical and Demographic Year Book of the city of San Salvador for 1909; this publication contains much important data, and I shall send it to the International Sanitary Bureau of the American Republics in Washington.

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IV.

Since the Third Sanitary Convention no yellow fever case has been noticed in the country.

Neither have we had any case of bubonic plague. Although there are infected ports south of us the small conventional relations that we maintain with them and the circumstances that there are between other ports of Central and South America, we would have to take a special preventive measure, aside from the regular medical inspection of steamers, which inspection is more rigid in cases of vessels that have come directly from infected ports and arriving before the period of ten days fixed by the Sanitary Code.

Malaria is a disease prevailing endemically in the majority of the towns of the country and appearing at all seasons of the year, with well pronounced exacerbations at the beginning and the close of the rainy season and under the classically known forms and other strange ones. We are now trying to better the local conditions of every town by draining swamps and enforcing general health measures tending to ameliorate as much as possible that constant and dreadful scourge which enervates our country so flagrantly, and which is one of the greatest obstacles to agriculture, industries and commerce; but hygienic habits, the propaganda of new ideas concerning infections by mosquito, and preventive and curative measures are gradually taking hold on the lower classes of the people, so much so that many places formerly dreaded on account of their lethality have greatly improved.

I give below the death rate of malaria in some towns where I have been able to obtain the statistics. I am sorry to state that I do not believe that these statistics are quite correct, because even in the capital, where there are a greater number of physicians and more means of support, hardly 25 per cent of deaths are certified by doctors, and the remaining 25 per cent die without medical assistance. In the other towns, of course, there is less accuracy in the diagnosis of the cause of deaths; to these we should add the indirect deaths caused by malaria under other forms:

Acajutla	69.2
Jiquilisco	42
San Francisco	34
Zacatecoluca	28
Sonsonate	20
La Libertad	18.5
Chalatenango	18
Santa Tecla	16.7
La Union	14
San Miguel	7
Ahuachapan	7
Apaneca	1.1
Chinameca	0.80
Santa Ana	0.58
Jucuapa	0

The morbidity in the city of San Salvador may be estimated at 45 per cent in some sections, with a general mortality of 6 per cent.

I shall now speak of the measures against tuberculosis, one of the diseases causing the highest death rate. The provisions passed by the Council in regard to the compulsory registration of tuberculosis; the bacteriological laboratory, established by the same body in the capital, for the free examination of sputum of suspected persons; the isolation of the patients in hospitals and private wards; the disinfection of houses, and propaganda of special hygienic prescriptions, are the measures adopted for the purpose of preventing that disease.

On private initiative of a board of physicians, and by popular contributions there will be established a sanatorium on the hills south of the capital, at a height of 1,080 meters above the sea level, provided with all the equipment necessary for this kind of establishment. The plans, which have already been prepared, show that the building will have a capacity for one hundred patients of the white plague.

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SMALLPOX.

I am going to dwell at length upon the campaign waged against the last epidemic of confluent smallpox that occurred in the earlier part of the current year.

In December, 1908, the epidemic broke out in the west of the Republic, near the Guatemalan frontier; it assumed alarming proportions, and it was introduced by laborers imported for the coffee crop. The first cases reported appeared in "La Gloria" plantation, within two leagues of Santa Ana in the Canton of El Portezuelo, there being three deaths and several cases.

The Director-General of Vaccination, Doctor Rodolfo B. Gonzalez, who was Delegate to the Third International Sanitary Conference, was commissioned to lead the fight against the epidemic and immediately proceeded to the field of battle, together with the necessary personnel and elements.

The original focus of the epidemic was located, and very energetic measures of isolation and disinfection were enforced. Simultaneously there appeared in the city of Santa Ana three cases that caused two deaths; a lazaretto was immediately established in that town, in which the first patients were isolated. Meanwhile, a commission presided over by Dr. Gonzalez, made a tour of inspection throughout the neighboring cantons for the purpose of enforcing the measures and of arresting the patients who were trying to flee; 126 of them were captured and confined in the lazaretto of Santa Ana.

Another lazaretto was established in La Empalizada, on account of its proximity to the canton of Comecayo, which was the most infected focus, contiguous to El Portezuelo.

These first measures having been enforced, six medical commissionrs, accompanied by troops, moved towards the frontier of Guatemala, with orders of maintaining constant telegraphic communication and of concentrating in a point previously set by the chief. The result of this search was the discovery of a new foci, and in order to fight them, lazarettoes were established in Ahuachapan and Chalchuapa, 46 patients entering in the former. In Antiquizaya another lazaretto was established. The greatest focus was found in the neighborhood of Santiago de la Frontera, where 154 patients were arrested and confined in the lazaretto.

In San Jeromino, near Metapan and the Guatemalan boundary line, 24 smallpox patients were found and confined in a lazaretto established in the same place. As the most serious and dangerous focus was that of Santiago de la Frontera, a sanitary cordon was established thereat with troops, for the purpose of preventing propagation. The isolation lasted two months; during that period only one individual violated it, availing himself of a forged passport. He was apprehended and punished in accordance with the sanitary cordon. During the period of isolation the persons within the radius of the sanitary cordon were provided with clothing and food.

The houses of patients were disinfected by the different methods recommended by modern hygiene; we employed with good success and great economy the method recommended in the Third International Sanitary Conference by Doctor Licéaga, called "Victoria" and invented by Doctor del Rio in connection with the campaign against yellow fever in the State of Tamaulipas, Mexico, for the disinfection of shacks.

Several houses and shacks which, on account of special circumstances could not be disinfected in one way or another, had to be destroyed by fire, previously indemnifying the owners.

From the Honduran frontier, and through the pilgrims to Esquipulas, the towns of Chalatenango, San Pedro Monulaco, Tenancingo, Guavava, and the capital were invaded by the epidemic, on which points lazarettoes were established for the isolation of patients without spreading the disease. In the "Concepcion Ramirez," Plantation Department of San Vicente, thirty cases were treated.

The greater number of lazarettoes were made of tents, and we tried to provide them with all necessary elements and comforts.

One of the means that has helped to ward off the epidemic was vaccination and revaccination, which was exagerated as much as possible; the physicians rendered the service free of charge, assisted by vaccinators who traveled throughout the valleys and towns of the whole country.

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It should be stated that we had little trouble in vaccinating the people because most of them accept vaccination with pleasure.

Vaccination and revaccination are compulsory in Salvador.

All the virus that was used was animal vaccine, prepared by the National Institute of Vaccine annexed to the Rosales Hospital, which institution was opened in 1907; it is provided with all necessary equipment and since its opening it has been under the direction of Doctor Gustavo S. Baron, and his first assistant, Doctor J. D. Juan C. Segovia, who have under them the necessary personnels.

In a book that I beg to submit, entitled "Rosales Hospital," the delegates will find illustrations and additional information in regard to this institution.

In normal times, one calf is vaccinated weekly and placed under observation during several days; from each calf we obtain an average of 800 tubes, the contents of which are sufficient for the inoculation of five or six persons. But during the month of December, 1908, and January, February and March, 1909, it was necessary to vaccinate as many as twelve calves per week in order to secure the sufficient amount of virus for all the departments and even the neighboring Republics. The following statistics given show the output of this interesting institute since its foundation up to the present date:

	Tubes.
1907	9,875
1908	31,000
1909	175,555
Total	216,430

It is also just to make mention of the spontaneous and active co-operation that Doctor Fernando Lopez rendered establishing an institute of Vaccine in Santa Ana, in which 131 calves were inoculated and the output of which was 6,338 c. c., of excellent virus.

Ordinarily, about 20,000 individuals are vaccinated every year; but on account of the last epidemic we may estimate that 87 per cent of the population have been vaccinated and revaccinated; and we have every reason to suppose that when all the statistical data for the present year has been compiled that proportion will reach 90 per cent.

About 800 patients were treated in the different lazarettoes, of which 10 per cent were of hemorrhagic confluent smallpox, 26 per cent of mild smallpox, and the rest of confluent smallpox. The deathrate was 6 per cent, but it should be stated that the majority of deaths occurred among cases which were taken up when the disease was already far advanced. (I beg to submit some photographs of the most remarkable cases and of pustules produced by the virus prepared by Doctor Lopez.)

Aside from the usual systematic treatment of antithermic, antipyretic and salt purgatives, mouth, nose and intestinal disinfection, we adopted as general treatment intramuscular injections of an acqueous solution of corlagol of 1 and 2 per cent, injecting from 1 to 6 c. c., and as many as 15 centigrams of corlagol per day, not injecting more than 1 c. c. each time. We also used with very good results colorgal ointment (Gredé formula) at the stages of eruption and suppuration.

In the scaling period we used sterilized olive oil mentholized at 1 per cent, and the patients were taken to a special lazaretto for convalescents; before discharging the patients they were given a bath, new clothing and two pesos and a certificate of discharge. With the treatment above explained, applied at an early stage, the fever descends after the first injection; the general condition is improved; the suppuration is extraordinarily reduced, not appearing in many cases, and the vesicles dry before turning into pustules, even in cases of very confluent smallpox.

It should be pointed out that not one single individual was left blind as a consequence of the disease, and that the number of deaths were very small, due undoubtedly to the fact that the majority of the inhabitants were vaccinated and revaccinated.

We will issue at the end of the present year an illustrated pamphlet regarding the smallpox epidemic, which will also be sent to the International Sanitary Bureau of the American Republics in Washington.

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Before closing, due mention should be made of the energetic attitude adopted by the President of the Republic who interested himself personally in the success of so arduous a campaign; of the Supreme Council of Health, for its wise measure; of the Supreme Council of the Red Cross, which furnished all the necessary funds, and of Doctors Rodolfo B. Gonzalez, Benjamin Rodriguez and Simon Espinosa, Jr., who faced the situation bravely and whose success is a real sanitary victory that does honor to the Republic.

I beg to be excused for having made such a minute account of the campaign against smallpox, having had two powerful reasons to do so: First, that it was the only epidemic that broke out since the Third Conference; and second, to show that in Salvador any epidemic invading its territory can be successfully eradicated.

WATER-SUPPLY—SEWERS—STREET PAVING.

The present administration of the Republic being convinced that water-supply in towns is one of the most efficient means of sanitation, has built or modified the water-supply of several towns, through the Boards of Promotion or Water Boards. Among the most important works I will cite the following: Cuscatancingo, Mejicanos, Ayutucepeque, Paleca, San Sebastian, Aculhuaca, San Marcos, and Sayapango, towns near the capital; in the city of La Union and the town of Conchagua, in the Department of La Union; Santiago de Maria and Berlin, Department of Usulutan.

In the city of San Vicente, capital of the Department of the same name, the water-supply system has been enlarged and improved.

In the city of Santa Tecla great water-works are at present under construction to change the old system for a new one of better grade and larger capacity so as to increase the water-supply, thus making the beautiful "City of Hills" one of the healthiest in the country.

It is gratifying for me to report that the water-supply system of the capital, of which project Doctor Gonzalez made mention in the Third International Conference, is about to be completed, because all the main and branch pipes have already been laid out in the city; there is only the roof of one of the distribution tanks to be finished. With this important improvement the capital will have 6,000,000 liters every 24 hours, a sufficient amount for the necessities of the whole city.

For further reference, I beg to submit a pamphlet containing the plans of said waterways, which have been followed in every detail. The cost of the system up to date amounts to nearly $600,000.

The following is a table showing the old water system of other towns in the Republic, with which the general supply of water will be completed:

Towns.	Population.	Length of system.	Origin.
San Salvador	57,024		
Sayapango	3,576	7,000	Spring
Ilopango	2,232		"
San Martin	6,000		"
Tonaquetepeque	7,056	4,080	"
Apopa	628		"
Santa Ana	48,280	3,700	"
Texistepeque	5,400	2,500	"
Chalchuapa	20,064		"
Coatepeque	12,192		"
Metapan	14,780		"
Ahuachapan	18,336		"
Atiquizaya	9,576		"
Sonsonate	14,400		"
Nahuizalco	12,960		"
Izalco	12,432	3,903	River San Antonio
Armenia	9,432	4,702	Spring
El Progreso	7,368		"
Santa Tecla	17,544		"
La Libertad	2,160	21,600	"
Chalatenango	8,016		River
Coquetepeque	10,128	1,009	Spring
San Rafael	4,032	1,000	"

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Towns.	Population.	Length of System.	Origin.
Suchitoto	15,264		River
Zacatecoluca	17,592	4,500	"
San Vicente	19,752		Spring
Guadalupe	3,120		"
Ilobasco	11,352		"
San Miguel	18,720	9,500	"
Chinameca	12,552		"
Jacuapa	9,024		"
Santiago de Maria	7,080		"
Alegria	4,632		"
Berlin	8,736		"
Santa Rosa	6,528		"
Tecoluca	6,648		"
San Julian	3,550		"
Jayaque	1,500	550	"

It should be stated that all the waters of these towns are of excellent quality, as shown by analysis, the waters of the capital being distinguished on account of the high proportion of Silitathat they contain, about 0. gr. 100 per liter.

The capital is provided with a sewer system the length of which is 14525 meters.

The Board of Promotion, upon completion of the water system, will undertake the construction of the new sewer system, to which end it has already made some studies; it will probably be made of concrete, which system offers many good advantages in its application to this city of earthquakes, and which is becoming more general in the construction of houses, a circumstance which will favorably and largely modify the hygienic conditions of the city; the municipality has already corresponded with manufacturers of machinery for making blocks and it is expected that next year the paving of streets will be undertaken, adopting, therefore, the system offering the best guaranties of health, durability and comfort.

Venereal Prophylaxis.

Under the General Bureau of Venereal Prophylaxis there is in the capital a hospital where women suffering from syphilitic and venereal diseases, exclusively, are treated. There are also bureaus in Santa Ana, San Miguel, Sonsonate and Santa Tecla.

	Number of registered women.
San Salvador	488
Santa Ana	83
Sonsonate	47
San Miguel	50
Santa Tecla	72
	740

Sanitary Statistics. Table No. 1.

1908 (Capital).

Soft chancres	280
Hard chancres	125
Accidental syphilis—	
Secondary vulvar	40
Secondary anal	25
Vaginal blennorrhagia	150
Gonorrheal urethritis	125
Gonorrheal metritis	60
Abscess of Bartholina glands	35

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1909 (CAPITAL).

Soft chancres	243
Hard chancres	65
Accidental syphilis—	
Secondary vulvar	30
Secondary anal	15
Vaginal blennorrhagia	104
Gonorrheal urethritis	112
Gonorrheal metritis	40
Abscess of Bartholina glands	20

FOODSTUFFS AND BEVERAGES.

The National Legislative Assembly during its sessions of the current year enacted a law providing that analysis be made of all preserves, liquors, and beverages in general imported into the country, and creating chemical and biological laboratories in the ports of Acajutla, La Libertad and La Union.

The municipality maintains a laboratory and exercises inspection of meats in slaughter houses and of foodstuffs in markets.

The Chemical Laboratory of the Central Board of Agriculture has made all the analysis of alcoholic beverages manufactured in the country.

	Analysis.
1907	385
1908	522
1909	383
Total	1,290

In order to save time and to give you a general idea of the sanitary condition of the country, I have been brief in some points of this report, hoping to be able to explain them verbally if it be necessary.

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REPORT OF DOCTOR NAZARIO TOLEDO, DELEGATE OF GUATEMALA.

Having been designated at the last moment to represent the Republic of Guatemala in the present Conference I have not been able to obtain data on the work accomplished in that country in regard to the sanitary conditions and improvements of its sanitation; nor, much less, to prepare in due form the report required by the provisional program upon the subjects therein specified; therefore, I beg the Delegates to excuse the deficiency of this report, promising to furnish the necessary additional information before the closing of the Fourth Conference.

As the ports are the places through which the diseases that ravage our countries are introduced, the Government of Guatemala has given preferential attention to the betterment of hygienic conditions in its ports open to international traffic, and especially in Puerto Barrios, located on the Atlantic littoral, it being the most important.

For this purpose the Government provided, during the recess of these Conferences, for the expenditure of $2,000,000 in sanitation works in that port, which have already been started; adequate machinery and apparatus for the disinfection of merchandise and passengers have also been ordered.

With reference to the sanitary conditions in the Republic I have to state that the endemic diseases which cause more damage in the country are typhoid fever, tuberculosis, eruptive fevers, especialy smallpox, and in the coasts, yellow fever. In regard to tuberculosis, against which a universal campaign has been undertaken that will diminish its propagation, the Government of Guatemala, mindful of its humanitarian duties, has taken the necessary steps to establish as soon as possible a sanatorium duly located and equipped, and in the meanwhile a pavilion in the General Hospital has been assigned for the isolation of consumptives.

In regard to smallpox and on account of the epidemic of last year the Government took very energetic and opportune measures such as are indicated to fight the disease and prevent its spread, with very satisfactory results. By virtue of a national law, vaccination is compulsory; there are establishments for the preparation of vaccine in the principal towns situated in the central, oriental and occidental regions.

In some towns on the Atlantic zone there were several cases of yellow fever, for which reason the Government increased the sanitary surveillance and enforced all necessary measures for the isolation of patients by means of rooms protected with wire gauze, and for the active persecution of the *stegomya* mosquito, the means of transmission of that disease; through these measures the danger was overcome and the propagation of the disease barred; and it can be said that for almost two years not one single new case of yellow fever has appeared in Guatemala.

The General Council of Hygiene has its seat at the Capital of the Republic, and is composed of members of the Faculty of Medicine and several illustrious lawyers, under the presidency of the Dean of the said faculty, Doctor Ortega; there are in the principal towns of the Republic boards under the jurisdiction of the Council.

Important improvements were recently introduced in the Health Service of the country, the most interesting of which are: First, the change of the pipes of the water supply system, which were formerly made of clay, into iron pipes; second, the improvement of the water used in the same supply; third, the improvement of the sewer system, now provided with disinfection apparatus.

There are crematories for the incineration of organic substances and refuse collected at the daily cleaning of the city.

Besides the General Hospital there is one for lepers at two miles from the Capital, with a capacity for 150 patients.

Mention should also be made of the Estrada Asylum for convalescents; annexed to the School of Medicine is a department of "La Gota de Leche" for the protection of children, the results of which institution have been very satisfactory.

The time for the reading of our reports being limited, I close this brief review of the Public Health of Guatemala, requesting my distinguished colleagues

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to excuse the omission of this report, which shall be filled within the shortest time; I take advantage of this opportunity to wish the greatest success to the Fourth Conference.

I now have the honor to comply with my offer of further reporting to this learned Conference upon the health conditions in the Republic of Guatemala.

The general health has been satisfactory throughout the Republic; last year smallpox appeared in isolated cases in several places of the Republic, but the Government, with due activity, established several lazarettos for the purpose of isolating the patients who were properly treated at the expense of the Government.

Vaccination being the only known means to prevent this terrible disease, Decree No. 691, of December 8, 1908, made it compulsory, as also revaccination every five years, there have been established in the Capital of the Republic in Quezaletenango and in the capital of the Department of Progreso, institutes of animal vaccine, which have rendered valuable co-operation in eradicating this disease almost completely, because no new cases have appeared at present.

The National Institute of Vaccine in the capital is provided with an able personnel and equipped with the necessary instruments imported from the United States and from Europe. It commenced its labors in June, 1908, and since then it has manufactured 400,000 doses of vaccine virus.

A remarkable improvement was that made in the sanitation of the coasts and the northern departments invaded by yellow fever in previous years.

There is a medical corps provided with all the necessary elements to prevent that disease and authorized by the Supreme Council of Health to adopt all necessary measures of prophylaxis. During 1908 and the current year no new cases of yellow fever have been registered. Among the sanitation works that should be mentioned are the following: Introduction of drinking water in Gulan and the establishment of a lazaretto in the same town; a hospital in Zacapa; a quarantine station in Puerto Barrios and Livingston. A strict surveillance has been established over all points liable to yellow fever infections. The Government, whenever necessary, enacts all measures tending to improve public health. The opportune quarantine measures are also being taken for the purpose of avoiding the introduction of yellow fever, bubonic plague, and other infectious diseases which unfortunately appeared in some countries of the continent.

By virtue of a contract entered into with the Guatemala Railroad Company, that corporation will undertake important preliminary sanitation works in Puerto Barrios. This preliminary work includes many excavations and fillings have been made; the inhabitants of the port have been provided with abundant drinking water from wells purposely opened, and the works are carried on with great activity, it being already noticeable that the sanitary conditions have greatly improved, for which reason it is expected that Puerto Barrios will soon be not only one of the safest tropical ports but also one of the healthiest.

A contract has also been recently entered into between the Government of the Republic and the United Fruit Company by virtue of which the latter agrees to undertake the permanent sanitation of said port, which works will cost $2,000,000. They include water supply and sewer systems, paving of streets, and a building to be used as a quarantine station. There is now at present a provisional station equipped with all necessary scientific apparatus and modern machinery sufficient for the service required by the present traffic of the port.

The disinfection of passengers, baggage and vessels coming from infected ports is duly made at this station.

There is a health officer in each port, and if the delegates from the United States, when they stopped at Puerto Barrios, had no occasion to see the health officer thereat, it was because he must have been making a tour of inspection throughout the zone under his jurisdiction, and that is the reason of his temporary absence. The ports of San José are also provided with a medical service and with the necessary elements to prevent the introduction of contagious diseases. It is, therefore, proven that there is a health officer in Puerto Barrios and that his absence must have been a temporary one.

I cannot at the present moment furnish any statistical data in regard to movement of population, because they have not reached me. I can, however, inform you that the Bureau charged with the collection of general statistics has been operating continuously during the sessions of the Fifth Pan-American

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Medical Congress, held in Guatemala City in 1908. A statistical table of the diseases prevailing in the Republic was submitted.

The same Bureau is now actively engaged in the preparation of a new edition of the Political Demarcation of the Republic, the necessity for which work being widely felt on account of the modifications that have taken place since 1892, the year of the publication of the last edition. Preparations are also being made for the taking of the General Census of the Republic which, for justified causes, was not made at the time prescribed by law. Data is also being collected for the Guide to Immigrants, which will be published when the new immigration and collection law is promulgated.

Before closing, it behooves me, gentlemen, to state that the Government which I have the honor to represent in this illustrious Convention exerts all due efforts to comply faithfully with all the provisions enacted by the three previous Conferences and it is ever willing to co-operate to the realization of the highly humanitarian purposes sought by this Conference.

A proof of it is that the Republic has appointed a Representative to this Assembly, and you may rest assured that I shall do my best to help you in the attainment of the just aspirations of the Governments interested in the public health of the American Republics. You shall have my unconditional co-operation, and though it be true that I cannot bring light to the deliberations of the Conferences, I am ready to confirm and accept all measures and resolutions that may be the result of our discussions.

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REPORT OF DOCTOR FERNANDO VAZQUEZ, DELEGATE OF HONDURAS.

In my capacity as delegate from the Republic of Honduras to the Fourth International Conference of the American Republics, I have the honor to present the report prescribed by the provisional program.

1. Since the last Convention no special sanitary laws have been enacted. There is a strict surveillance in ports for the purpose of preventing the introduction into the country of persons suffering from yellow fever, bubonic plague, or cholera; this service is in charge of competent physicians who inspect all vessels before admitting them to free pratique. Vaccination against smallpox is compulsory in the Republic, by virtue of a law promulgated many years ago.

2. The political disturbances that the country has experienced during the last years have prevented it from codifying its sanitary laws, but the administration of General Davila proposes to cause such a codification to be made soon, and after its completion it shall be sent to the International Bureau at Washington.

It has not been necessary to make vaccination compulsory, because, as I stated above, all inhabitants are obliged to vaccinate themselves, in accordance with a law that has been in force for many years.

The bad financial condition of Honduras has not permitted the Government to declare absolutely free of fiscal duties qunine, salts, crude petroluem, wire gauze, and mosquito nets; but such duties are so low that those articles are within reach of all, and due to their use the number of malarial victims has been noticeably reduced. The Government has exerted special efforts in educating the public in regard to the etiology of malaria and in popularizing the prophylaxis and the manner of fighting diseases.

Patients of trachoma or beri-beri, are not admitted in the ports of Honduras.

The use of carpets and curtains is prohibited in the railroads of the Republic; all cars are provided with a great number of cuspidors, and they are always kept clean and periodically disinfected.

There are no special hospitals for tuberculosis patients, but the general hospitals are provided with separate pavilions for the treatment of persons suffering from that disease.

3. The sanitary conditions of the two principal ports of Honduras, are not perfect; but it cannot be said that those ports are unhealthy. In Amapala, a port on the Pacific Ocean, not one single case of yellow fever has appeared during the last fifteen years; the last invasion took place in 1894, I being the health officer who fought it; we did not know then the real cause of the disease, and we had then very imperfect elements with which to fight it. By isolation and cleanliness we succeeded in quenching the epidemic; in later years, with a perfect knowledge of the etiology of the disease, the dreadful scourge has been held at bay, by draining swamps and covering with the wire gauze the large receptacles for rain water in the roofs of houses, the only source of drinking water that there is in the town. In Puerto Cortes, on the Caribbean Sea, the crusade against the *stegomya mosquito* has been very energetic, and very stringent quarantine measures have been in force, in accordance with the sanitary authorities of New Orleans; in spite of this measure an isolated case of yellow fever appears from time to time, but its propagation is prevented by means of the strictest isolation.

Malaria ravages both the littorals and is the most formidable enemy of public health in the coasts of the country; but the fight against it is active and constant, and thanks to it we will be able to control the disease.

The registration of the movement of population has been done in an imperfect way and I have no precise data in regard to the death rate in the country.

Supplementing the report that I presented to this Convention in its first session, I have the honor to add some data that I have just received from the Government of Honduras. Referring to the first point of the provisional program, relative to the sanitary laws and measures of my country, I have the pleasure to state the National Executive will submit to the Constitutional Congress, in the next ordinary sessions, a project for a Sanitary Code, a copy of which I annex to the present report. The said Code establishes a superior board of health, with headquarters at the capital of the Republic, composed

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of two physicians, one pharmacist, one chemical expert, one lawyer, and one engineer, having under its control departmental and local boards. It contains provisions relating to the Health Service of frontier towns and to the general health service of departments; to Medical Statistics, to Hygiene of Houses and Schools, to Foodstuffs and Beverages, to Interior Hygiene of Factories, Barracks, Penitentiaries, etc., to the inhumation, exhumation and removal of cadavers. It also contains very stringent measures for the isolation of cases of infectious and contagious diseases, regulations of sanitary police with regard to animals, to hygiene of stables and slaughter houses, and establishes severe penalties for violations. The provisions that the Code contains in regard to the sanitary administration of the ports of the Republic are very complete, and their rigid enforcement will safeguard the country against epidemics from abroad and guarantee the health of countries where ships coming from Hondurean ports arrive. In the principal ports there will be disinfection stations established in accordance with the plan that may be designated by the Superior Board of Health. The Code has an appendix containing models for sanitary documents. The Government of Honduras has appealed to the Sanitary Convention of Washington, of October 14, 1905, which will be declared a law of the Republic in the next sessions of the Constitutional Congress.

With reference to the other points of the provisional program I will make mention of the sanitation of cities and ports saying that in the capial of Honduras there is a perfect system of sewers and water supply, as also in the cities of Yuscaran and San Pedro Sula; in many other cities of the country water works are under progress and in many of them under construction.

I should add that the administration of General Miguel R. Davila does its best in order to place the Republic in the same position as the countries which are most advanced in the matter of public health, and that one of its principal aims is to banish from all territory all infectious diseases, especially malaria, which is the scourge of the Hondurean coasts, and tuberculosis, which causes every year several deaths in some points in the interior.

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REPORT PRESENTED BY THE DELEGATION FROM MEXICO, COMPOSED OF DOCTORS EDUARDO LICÉAGA AND JESÚS MONJARÁS.

In rendering the present report, which is a résumé of what has been done in the Mexican Republic, the delegation will follow the order indicated in the Provisional Program, making reference only to the points relating to Mexico.

1. *Reports presented by different delegates in regard to the sanitary regulations and laws adopted, and enforced, in their respective countries since the last meeting.*

On December 28, 1908, there was promulgated in Mexico an Immigration Law, which, although bearing that name, refers not only to immigrants, but also to all foreigners arriving in the country through its sea ports or frontier cities.

This law prohibits the admission of persons suffering from bubonic plague, cholera, yellow fever, cerebro-spinal meningitis, typhoid fever, exanthematic typhus, erysipelas, measles, scarlet fever, smallpox, diphtheria, or any other acute disease which the Executive may consider transmissible.

It also prohibits the admission of persons suffering from tuberculosis, leprosy, beri-beri, trachoma, Egyptian mange, or any other chronic disease that the Executive may consider transmissible.

The admission of the following is also prohibited: Epileptics, insane, old, feeble, deformed, lame, maimed, hunch-back, paralytic, blind, or otherwise crippled persons, or those who through any physical or mental defects are unfit for work and may become a public charge; prostitutes or individuals who intend to introduce them into the country for the purpose of exploiting them or of living at their expense.

The law prevents the admission of other foreigners, of whom we do not make mention because there prohibition does not refer to purely hygienic subjects.

Of course, there are exceptions in some of these cases, but guarantees are then required so that the immigrants or foreigners thus excepted may not become a public charge.

Shipping and immigration companies are held pecuniarily responsible for the violation of the law, whether such violation be committed by the companies themselves or by their agents.

The same law establishes the rules to which ships transporting passengers to the ports of the Republic shall be subjected, and prescribes which cases should be removed to the lazarettos or to the sanitary stations, and those which cannot be admitted by any means.

The law deals separately with immigrant laborers and with immigration companies, defining who are immigrant laborers; it prescribes the ports especially designated for the arrival of immigrants when their number exceeds ten, and establishes the rules to which ships conveying immigrants shall be subjected.

The Immigration Service is directly under the Department of the Interior, which administers this branch by means of special officers, such as immigration inspectors, assistant agents, and immigration boards.

All violations of the law are tried before the Federal Courts.

The regulations of this law were issued on February 25th of the present year, and they contain in detail the provisions regarding the manner in which passengers and immigrant laborers shall be received in the seaports, and the rules governing passengers on land; they also prescribe the administrative jurisdiction in the matter of immigration.

From the above it will be seen that the law to which we refer not only protects the Mexican Republic against transmissible, acute or chronic diseases, but also in providing for its own defense, protects the nations which maintain relations with us by land or sea.

II. *Special report by each official delegate regarding the manner in which the resolutions adopted in the previous Conventions have been put into practice in their respective countries.*

We will take up separately the resolutions adopted in each one of the three Sanitary Conventions.

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FIRST CONVENTION.

The most important resolution was to the effect that the Convention should be governed by the resolutions approved by the Second Pan-American Conference, held in Mexico in 1901-02. As the resolution refers to the Convention itself, the delegation will not report upon it; but we will state that it has been faithfully observed in all the Conventions.

The second resoluion provides that: "That the time of detention and of inspection at maritime quarantine stations shall be the least practicable time consistent with public safety and in accord with scientific precepts."

Mexico has enforced quarantine only during the epidemic of bubonic plague that took place in Mazatlan; with regard to yellow fever in the Gulf ports, it does not establish quarantine; the vessels are detained only the necessary time for making the disinfection and sanitary inspection of passengers, and suspected non-immunes are not subjected to observation, but they are simply watched by the sanitary and civil authorities, because our nation has always maintained, both before scientific congresses and conventions and in practice, this principle: "To defend the interests of public health, without injuring, or doing the least possible injury to, the nations dealing with that which adopts the measures of defense, but always basing such measures upon the principles of sanitary science."

With regard to the third resolution, Mexico has modified its procedure for receiving vessels in its ports, in the case of yellow fever, since the confirmation of the doctrine of the transmission of these diseases by means of the *stegomya* mosquito; therefore it can be said that Mexico has faithfully complied with this provision.

With reference to the fourth resolution, the Government has continued studying the geographical distribution of the *stegomya* mosquito in order to establish sanitary services in the places where these mosquitoes exist, with a view to eradicating yellow fever when it appears, or to prevent its appearance.

Mexico complied strictly with the provisions of the fifth resolution, when bubonic plague invaded the port of Mazatlan. It has not been necessary to enforce those measures in any other town, because since the summer of 1903 not one single case of plague has been recorded in the whole country.

The sixth resolution refers to the manner in which the discharges of cases of typhoid or cholera should be treated. As cholera has not appeared in the Republic since 1883, it has not been necessary to take special preventive measures against this disease, aside from those contained in the Sanitary Code. As regards typhoid fever, it is provided that rooms where cases have occurred and the discharges and all articles soiled therewith must be disinfected. As the seventh resolution refers to the duties of the International Sanitary Bureau, it only behooves us to state that Mexico has regularly contributed with the quota assigned to it for the maintenance of the International Bureau of the American Republics.

SECOND CONVENTION.

With reference to the third resolution, paragraph (b), the Mexican Delegation can assure that the plan of defense against the propagation of yellow fever has been established since 1903; that it has acted in accordance with paragraph (c), promptly reporting all the cases; with regard to paragraph (f), that, since 1894, the quarantine services are under the control of the Federal Government, and that, since 1903, the campaign against yellow fever is managed by the Federal Government itself, with the assistance of some of the States of the Republic.

With regard to the Sanitary Convention signed at Washington on the 14th of October, 1905, we will say that it has constantly been complied with by the Government of the Mexican Republic.

THIRD CONVENTION.

As to the second resolution, Mexico has codified its sanitary legislation in a Sanitary Code of the Mexican United States, since 1891, and in the Regulations of Maritime Sanitation referring to International Sanitary Police, dated in 1894.

With reference to the fifth resolution we beg to report that vaccination against smallpox is compulsory in Mexico since 1891.

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The free admission of quinine salts, wire guaze, crude petroleum and mosquito netting, referred to in the sixth resolution, has not been as yet provided for, but such articles are freely distributed in all places where yellow fever formerly prevailed and where there are malaria patients.

Referring to the seventh resolution, Mexico has carried on the propaganda therein recommended by establishing leagues against malaria and yellow fever in Campeche, Coatzacoalcos, Cordoba, Merida, Progreso, Salina Cruz and Laguna del Carmen, and by means of lectures for the purpose of propagating the doctrine of the transmission of both diseases through mosquitoes; a special agent was also detailed to lecture along the Pacific coast on the said doctrine.

Mexico has likewise complied with the eighth resolution by buying great quantities of quinine, which the Government distributes freely, not only for the treatment of patients, but also as a prophylactic means, among persons exposed to malaria.

In pursuance to the eleventh resolution, Mexico has published pamphlets regarding the transmission of malaria and yellow fever and containing advices for preventing the infection by said diseases. These pamphlets contain brief, simple and practical instructions so that the doctrine may become known to all social classes, and they have been widely distributed.

With reference to the twelfth resolution, we beg to state that immigrants afflicted with trachoma or beri-beri are not admitted to the country.

Referring to the fourteenth resolution, we will say that Mexico has not yet succeeded in organizing a Department of Public Health, but the sanitary authorities are working with that end in view. Practically, however, the services of public health are centralized in the Department of the Interior, in all that related to the Federal Districts and Territories, to the Gulf and Pacific ports and to the frontier towns; and also in the states in what relates to the prevention of the spread of epidemic diseases.

In the campaign against yellow fever the States of Yucatan, Campeche, Chiapas, Tabasco, Oaxaca, Vera Cruz, and Tamaulipas intrusted the Federal Government with the direction of said campaign. When the epidemic of bubonic plague appeared in Mazatlan the States on the Pacific littoral likewise intrusted the Federal Government with the direction of the campaign against that disease.

The campaign against tuberculosis, referred to in the thirteenth resolution, was initiated in Mexico many years ago.

Reports in regard to sanitary conditions in ports and measures proposed for the improvement of such sanitary conditions (with special reference to the principal ports).

As the report presented by the Mexican delegation to the Third Sanitary Convention, held in Mexico, contained a very detailed account of the sanitary conditions in the principal ports of the country, especially in those of Tampico, Vera Cruz, Coatzacoalcos, Manzanillo and Salina Cruz, we beg to refer the Conference to said report, adding only that the Federal Government has just authorized the negotiation of a loan of 1,000,000 pesos for the completion of the sanitary works in the port of Tampico.

In the report alluded to we stated the amount spent by the Federal Government in Mexico City and other towns of the Republic, with a total of $45,831,361.64, to which should be added the amount of $831,913.06 inverted after the Convention of Mexico, and $1,000,000 recently authorized for Tampico. Therefore, the Federal Government has spent in the sanitation of its ports, of the city of Mexico and of other towns, the sum of $47,633,374.70.

Besides these, the cities of Monterey, Guadalajara, Puebla, and Oaxaca.

Reports relating to the registration of the movement of population and the rate of mortality in each country, specifying those in ports and principal cities.

We have not been able to comply with this provision because the new census of the entire Republic will not be taken until 1910, and not before then will we be in a position to send to the countries that signed with Mexico the Sanitary Convention of 1905 the Mortality Statistics, that is to say, the proportion of the number of its inhabitants in a city and the number of deaths occurred in the year 1910.

V.—*Sanitation of cities and especially of ports.*

In paragraph 5 of the report presented by this delegation to the Third Sanitary Convention an account is made of the sanitation of the principal ports and cities.

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In order to comply with this part of the program the Mexican Delegation has the honor to explain the methods followed in Mexico and for that purpose believes that it can do no better than to transcribe the article relating to that point which is contained in the Sanitary Code of 1891, and the further development of the principles of that article in the Maritime Sanitary Regulations which have been in force since the year 1894.

The former reads as follows:

"Art. 22. Whenever any vessel is about to leave a Mexican port the Delegate of the Supreme Board of Health will proceed to make the official visit which is required under the Maritime Sanitary Regulations, and will issue the Bill of Health showing the hour at which it is issued."

The Maritime Sanitary Regulations contain the following:

"Art. 57. The Delegate will deliver the bill of health to the Master or Ship's Doctor only after making his last official visit in order that he may set forth therein, of his own personal knowledge, the sanitary condition of the ship, passengers, crew and susceptible merchandise.

"Art. 58. Bills of health will be issued free of charge to foreign war vessels, and without expressing their destination.

"Art. 60. Every master or port agent of a vessel about to proceed to sea will apply in writing to the Port Delegate, or to the official who may represent him, for the clearance of his vessel, giving the following data: Class of vessel; nationality; registered tonnage; names of master and doctor, if any; number of crew; number of passengers, in transit and received in the port; cargo received therein; ports of call; final destination and exact hour of departure.

"Art. 61. The application referred to in the preceding article shall be delivered to the Delegate of the Board at least three hours before departure of the vessel in order that this officer may have time to inspect the principal departments of the vessel, have them disinfected if necessary, change the water in the bilge, if it appears to him desirable, ascertain the sanitary condition of the crew and passengers, and take all other steps which may be necessary so that the vessel sailing from a Mexican port may do so in a good hygienic condition.

"The sanitary authority who may represent the Delegate in ports of the fourth class will make the official visit before departure, issue the Bill of Health, and if he finds anything which requqires it, he will report to the Board in order that it may decide what is to be done under the circumstances.

"Art. 63. All vessels leaving Mexican ports shall comply with the following requisites:

"I. The food carried on board shall be of a good quality, under such conditions that it can be kept in a good state, and sufficient in quantity for the number of persons in the crew and passengers in proportion to the days which the voyage is to last.

"II. The vessel shall carry a sufficient quantity of drinking water in proportion to the number of days the voyage is to last.

"III. The staterooms and sleeping berths for the passengers and crew shall be of sufficient capacity to prevent crowding.

"IV. The water in the bilge shall be in good condition and shall be renewed if found to be infected.

"V. Whenever allowed by the capacity and construction of the ship there shall be a proper place for the isolation of persons suffering from contagious diseases.

"VI. Whenever the kitchen utensils are made of copper they shall be properly tinned.

"VII. There shall be a medicine-chest equipped with all the necessary medicines.

"VIII. The vessel shall be equipped with the most indispensable disinfectants for its own sanitation in the event of its being infected.

"IX. The life-saving equipments must be in good condition and proportioned to the number of persons carried by the vessel.

"X. The general condition of cleanliness of the ship and crew must be satisfactory.

"XI. The toilet-rooms must be supplied with a proper disinfectant.

"XII. They shall not carry any persons on board who are suffering from any transmissible diseases mentioned in these regulations, and should any passenger be suspected of tuberculosis the Master will be requested to make a

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special disinfection of the stateroom and clothing whenever such passenger leaves the vessel.

"Art. 65. Merchants who ship *susceptible goods* from Mexican ports are requested to have them disinfected so as to avoid the necessity of quarantine."

Furthermore, in dealing with cases of yellow fever, it is provided that the vessel shall be fumigated whenever moored near the wharf or mosquitos are found on board.

As can be seen, all possible precautions are taken for the protection of passengers leaving Mexican ports, not only when such ports are infected, but also under any circumstances whatever.

DISCUSSION OF MEASURES AGAINST THE INTRODUCTION OF DISEASES NOT INCLUDED IN THE CONVENTION OF WASHINGTON OF 1905.

The Convention of Washington makes provision for measures against plague, cholera, and yellow fever only. The Mexican Republic protects itself against other diseases besides, such as, among the acute ones, cerebro-spinal meningitis, typhoid fever, exanthematic typhus, erysipelas, measles, scarlet fever, smallpox, and diphtheria, and the Federal Executive reserves the right to include any other acute disease that he may consider transmissible.

Among the chronic diseases the immigration law includes tuberculosis, leprosy, beri-beri, trachoma, Egyptian mange, or any other chronic disease that the Executive may consider as a transmissible one. The law also prohibits the admission of epileptics, insane, old, feeble, deformed, lame, maimed, hunchback, paralytic, blind or otherwise crippled persons, or those who through any physical or mental defects are unfit for work and may become a public charge.

The measures of protection against transmissible diseases are contained in the following articles of the Sanitary Code:

"Art. 26. The prophylaxis measures in Mexican ports for the purpose of preventing the introduction of epidemic and transmissible diseases shall be:

"1st. Sanitary medical inspection of vessels;

"2d. Surveillance, or, if necessary, isolation of suspected passengers;

"3d. Isolation of patients until they have completely recovered, in lazarettos or remote places;

"4th. Disinfection of vessels, baggage and merchandise whenever necessary;

"5th. Destruction of animals transmitting infection.

"Art. 27. The prophylactic measures referred to in the preceding article shall be subject to the provisions of the Maritime Health Regulations, and power is given to the Supreme Board of Health and its Delegates in the ports to detain vessels as long as necessary *while said measures are carried out.*

"8th. Sanitary models or forms to be adopted by nations forming part of this Convention."

For the information of the Delegates we annex to this report copies of the models used in the Mexican Republic for the entry of vessels and for bills of health.

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COUPON.

Bill of Health No.....
Kind of vessel.....
Nationality . . . .
Name . . . .
Tonnage . . . .
Name of master.....
Name of physician.....
Destination . . . .
Ports of call.....
Number of members of crew.....
Number of passengers.....
Tonnage of cargo.....
Kind of merchandise.....
Sanitary condition of vessel.....
Sanitary condition of crew.....
Sanitary condition of passengers.....
Sanitary condition of port.....
Sanitary condition of city and suburbs.....
Port of.....at.....M., on the .....of the month of....., 19...
Authority issuing bill of health.....
Fees charged $.....

MEXICAN REPUBLIC.

Document and Book Stamp here.

SUPREME COUNCIL OF HEALTH.

Bill of Health No.....

The undersigned, Delegate Physician of the Supreme Council of Health at the Port of....., certifies that....., registered at.....tonnage, Captain....., Physician....., leaves this port with destination to....., and calling at ....., with.....crew, ... passengers, and.....tons of cargo.....

He certifies also that the general sanitary condition of the vessel, crew, and passengers. . . .
....
and that the sanitary condition of the port.....
....
and of the city and suburbs.....

Issued at....., at.....M, on the.....of the month of....., 19....

.....
Delegate Physician.

Value $.....

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REPUBLIC OF MEXICO.

Port of.....

Sanitary Delegation. Shipping Entries.

Name and class of vessel.....
Nationality . . .
Registered tonnage . . .
Name of Master .....
Name of Doctor.....
Number of crew.....
Number of passengers in transit.....
Number of passengers for this port.....
Port the ship cleared from.....
Name of consignee.....
Port the passengers embarked in.....
Days from first port of departure.....
Ports touched at.....
.....
Days from last port touched at.....
Tons of cargo for this port, with classification of goods.....
.....
Tons of cargo in transit with specification of goods.....
.....
Port of shipment of cargo contained in ship.....
.....
Has the ship any sick people on board? If so, what is the disease?.....
.....
Has there been any sickness on the voyage? If so, with what disease?.....
.....
Were any sick persons received on board in ports touched at? If so, what was their disease? .....
Have any deaths occurred during the voyage?.....
What was the cause of death?.....
Has any communication taken place with another ship during the voyage?.....
.....
Where was that ship bound for, of what character was the communication and how long did it last?.....
What was the sanitary condition of that ship?.....
Did she proceed from an infected or suspected port?.....
Was any person or cargo transhipped?.....
If cargo was transhipped, specify the class of goods and where they came from?
.....
Does your cargo contain old rags?.....cotton waste?.....tanned hides? .....feathers?.....hides and furs?.....horse hair or bristles? horn and hoof animals?.....wool?.....goods manufactured of wool, but not packed?.....
Exact time when the ship anchored?.....
All of which I certify to in the port of.....
this.....day of.....19....

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SUPREME COUNCIL OF HEALTH OF MEXICO.

SANITARY DELEGATION.

I have to-day issued to.....
.....
bill of health for a national port and.....for a foreign port.....

Which I have the honor to communicate to you for your information and subsequent purposes.

Liberty and Constitution.

.....of the month of....., 19..

....

Physician. *Delegate.*

To the Collector of Customs at.....

SUPREME COUNCIL OF HEALTH.

SANITARY DELEGATION.

There anchored at this port to-day.....
.....of..... registered tonnage, this being.....national port at which it touched.

Which I have the honor to communicate to you for your information and subsequent purposes.

Liberty and Constitution.

.....of the month of....., 19..

....

Physician. *Delegate.*

To the Collector of Customs at the port of.....

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REPORT OF DOCTOR BELISARIO PORRAS, DELEGATE FROM PANAMA.

I have had the honor, of which I am not worthy, of being designated by the President of the Republic of Panama as a Delegate with Full Powers to represent the said Republic in this International Conference, and I now have the privilege to submit to your consideration a succinct report in regard to the Sanitary Laws and Measures in force in my country since the last International Sanitary Convention: in regard to the manner in which the resolutions passed by the three previous Conferences have been put into practice; to the sanitary conditions of our ports, and to the other points of the Provisional Programme of this Conference.

A.

I.—Since the last International Sanitary Conference, held in Mexico on December 7, 1907, Panama has complied most faithfully with all the prescriptions relating to infectious diseases. It may be said, by the way, that since 1907 the Isthmus of Panama has been free from yellow fever, smallpox, bubonic plague and other quarantinable diseases. The last case of yellow fever occurred in November, 1905; and the last suspected case of the same disease appeared in May, 1906. Therefore, the sanitary works carried on in the Isthmus by the illustrious Colonel G. Gorgas, Chief Health Officer of the Canal Commission, in regard to quarantine, clearly show the effects and advantages of modern sanitation, undertaken with the intelligent application of proven facts with regard to the propagation of diseases.

I will enumerate briefly the sanitary laws, regulations and measures in force in Panama, Colon, and Canal Zone, promulgated in 1904, and modified from time to time in order to adapt them to circumstances.

(1) Water-supply systems have been established in the cities of Panama and Colon and all along the Canal Zone. All water receptacles which might have become breeding places for mosquitoes have been removed and destroyed. Modern systems have also been established, and small towns and neighboring districts are provided with pail systems for the disposal of fecal matter. The streets of Colon and Panama have been paved in such a way that only those of the principal capitals of Europe and the United Sttaes could be compared to some of them; there are macadamized roads throughout the Canal Zone.

(2) For the improvement of sanitary conditions in towns and lands near the camps on the Canal Zone an extensive drainage system has been installed for the purpose of diminishing as much as possible the accumulation of stagnant water, thus facilitating the extermination of mosquitoes, and, consequently, the prevention of diseases transmitted in the cities of Colon and Panama is very small, so much so that it may be said that there are no longer any mosquitoes; the remarkable decrease in the number of those called *stegomya calopus* render Panama and Colon, as well as the Canal Zone, virtually safe from the yellow fever. All swamps, wells, and other places where mosquitoes might breed are constantly inspected and treated with crude petroleum or Phinotas Oil, which give the best results in the destruction of the larvæ.

(3) There is a good system for the disposal of garbage or refuse by means of metallic pails which are perfectly air-tight. These pails are removed and emptied by the Cleaning Department every twenty-four hours.

(4) Adequate provisions have been enacted for regulating the construction of new buildings. In accordance thereto, all buildings must be provided with ventilation, drainage and light, and in the city they must have connections with the water-pipes and the sewer system. The same regulations provide that all buildings shall be rat-proof. This is a wise measure because it reduces the number of rats and prevents the introduction of bubonic plague. All plans for new buildings must be approved by the health authorities.

There are also in force regulations regarding the construction of stables, providing that they must be built in accordance with hygienic principles so that they shall not become breeding places of rats.

(5) Regulations governing the raising and slaughter of cattle, sheep, hogs, and other animals for public consumption, and the sale of food products; markets and other places where articles of food are sold are carefully inspected.

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The sanitary regulations prescribe that all houses and sites be kept clean and in good sanitary condition, and the inspectors of the Department of Health see to it that such regulations are faithfully complied with.

(6) Regulations compelling the immediate registration of contagious diseases, such as diphtheria, scarlet fever, measles, smallpox, etc., are so rigidly enforced that the notification is received immediately after each case appears; upon receipt of such notice the case is immediately isolated, and the necessary disinfection made.

(7) There are strict regulations to prevent the incubation of mosquitoes in houses, prohibiting the use of cans, pails, tubs, and other similar receptacles, under penalty of a fine.

During the last eighteen months an active crusade has been waged against rats, by means of poisons and traps, with a view to the destruction of those rodents, and of placing the ports in as good a sanitary condition as possible from the point of view of bubonic plague.

B.

II.—With reference to the sanitary conditions in the ports of the Republic, I will say that a very strict quarantine service is maintained against infected ports, and all vessels arriving therefrom, as well as those having cases on board, are carefully inspected before being admitted.

In Panama a large quarantine station has been built, provided with a floating disinfecting plant, for disinfection by means of sulphurous gas, steam, and formaldehyde gas. In Colon there is a provisional quarantine station equipped with the necessary means of fumigating and disinfecting of vessels and baggage. A large permanent quarantine station will soon be built in the latter port.

In Bocas del Toro, another port of entry, there is maintained a quarantine service, and some of the works have been carried on in the same manner and under the same regulations above mentioned.

The law making vaccination compulsory is also in force, and all persons who establish their residence in the cities of Panama and Colon and in the Canal Zone must be vaccinated, unless they have already been protected against smallpox by recent vaccination.

From the above it will be seen that the resolutions by previous conferences have been complied with in Panama and have been in force since 1904.

C.

III.—The sanitary condition of the ports and of the Canal Zone are most satisfactory. As I have said before, they are provided with water-supply and sewer systems, and kept clean. Each section is under the supervision of a Health Officer who has under him the necessary number of Health Inspectors and employees. The evident proof of all this lies in the fact that not one single case of yellow fever or bubonic plague has occurred since 1905, and that when in 1906 there were a few cases of smallpox in Colon, brought by a child from Cartagena, the disease was quickly controlled and no propagation took place outside of the inhabitants of the house occupied by the sick child, and of two neighboring houses.

Next year the work of enlarging the paving of the streets of Colon will be undertaken, as well as the construction of the water-supply and sewer systems. In Panama the paving of streets, the water-supply system and the sewer system will also be enlarged. The cost of these improvements will be $800,000, of which $300,000 will be spent in Panama and $500,000 in Colon. The sanitary conditions and especially the results of sanitation are clearly proven by the death rate in those districts, which is as follows:

D.

IV.—In order to have reliable data in regard to the movement of population a detailed census has twice been taken; that census has been rectified by the immigration statistics, compiled monthly by the Departments of Immigration and Quarantine, and shows the exact number of persons that come in and go out of the country; therefore, the increase in population as shown by such figures is correct.

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The best way of showing this increase in population and the death rate is to give here the figures for the years from 1905 to 1909, inclusive:

Year.	Population of the Zone, Panama and Colon.	Population of Panama.	Population of Colon.	Annual death rate.
1905	56,624	22,000	11,000	50 per 1,000
1906	73,000	25,000	13,000	48 per 1,000
1907	102,000	33,000	14,000	33 per 1,000
1908	120,000	37,000	15,000	24 per 1,000
1909	142,000	43,000	18,000	19 per 1,000

E.

V.—Referring further to the quarantine regulations, I can affirm that in my country all sorts of preventive measures are enforced in ports of entry for the purpose of avoiding the introduction of diseases by means of infected vessels or cargo or passengers from infected ports. In the majority of cases protective measures are taken by employees of the quarantine service in the ports of origin. The ship is fumigated in the infected port before leaving for the port of the Republic of Panama; passengers and their baggage are carefully examined and disinfected when necessary. The shipment of merchandise which may be liable to transmit infection is prohibited.

It should be noted that with the observance of such measures in the port of origin, which is done under the supervision of a delegate physician attached to the consulate at the port of clearance, the ship leaves such port with a clean bill of health, so that the time which it consumes in the trip can be counted for the purposes of quarantine, and passengers from ports infected with yellow fever or bubonic plague who may have been four days in the water are only detained two days, that is to say, the necessary time to complete the period of quarantine prescribed for the disease, counted from the date of sailing to that of arrival. Upon arrival, passengers or other persons on board ship who have not completed the period of quarantine during the voyage are removed to the quarantine station to be detained for a number of days necessary to complete said period. Should a ship arrive with a case on board, against which no protective measures were taken in the port of origin, the quarantine measures prescribed by the Convention are observed.

Since passengers arriving from infected ports are considered as coming from infected centers, in accordance with the articles of the Convention, such passengers are not allowed to proceed to neighboring countries until they have completed the period of quarantine in Panama, because if they were permitted to do so they would be a serious danger to neighboring ports and other countries.

F.

VI.—With preference to the forms and models that should be adopted by the nation that take part in the International Sanitary Convention, paragraph two of the Convention of Washington, which prescribed regulations for baggage and merchandise, makes no mention of one kind of cargo which, in the opinion of experts on the subject, is extremely dangerous, and such is all merchandise which might afford food for rats. Under this classification, cereals, grains, bran, etc., might be included.

The second point in regard to this subject which is worthy of consideration is that concerning the indemne ship. According to the Convention of Washington a ship is considered indemne when, although coming from an infected port, she has had neither death nor case of plague cholera, or yellow fever on board, either at the time of departure, during the voyage, or at the time of arrival. Article twenty-three provides that ships indemne from plague ought to be admitted to free pratique immediately, whatever may be the nature of their bill of health. The measures governing such ships are: Disinfection of soiled linen, articles of wearing apparel, and other personal effects of the crew and passengers, but only in exceptional cases; and destruction of rats by fumigation, if the sanitary authorities deem it necessary.

If only a minimum of measures is enforced against indemne ships it may be clearly seen that if infection existed on board, either in infected rats or in

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infected wearing apparel, and passengers are allowed to disembark immediately after the fumigation or disinfection of the ship they would naturally have been exposed to infection of bubonic plague up to the very time when disinfection took place, and therefore they would be apt to develop the disease within any time during the five days following their landing. The question relating to indemne ships is, according to data obtained by the illustrious physicians at the head of public hygiene in my country, Gorjas, Peary and Pierce, of far greater importance, and articles of the Convention relating thereto should be more carefully studied and given a wider scope. These distinguished physicians opine that if the history of the introduction of bubonic plague in clean and healthy ports be examined, it will be seen that almost always the propagation of that disease was due to the so-called indemne ships.

Therefore, it would be very advisable to investigate if five days are a sufficient period of quarantine for bubonic plague. Many countries, including Japan, prescribe a longer and more rigid quarantine. Some cases of bubonic plague are developed five days after they had been exposed to infection.

Summing up the subjects of the provisional program of the Sanitary Convention of American Republics, I beg to report the following:

I.—The sanitary measures in force in the Republic of Panama since the last Conference, outside of those enacted by the Chief Health Officer of the Isthmian Canal Commission, in regard to sanitation on land and the regulations of the Public Health and Marine Hospital Service of the United States, in regard to quarantine measures, special circulars have been issued from time to time, amending quarantine measures for special ports according to the changes in the sanitary conditions thereof.

II.—The Government of Panama and the sanitary authorities of the Canal Zone have faithfully observed and complied with the resolutions approved by the three previous Conferences, Article IX, paragraph 11, chapter 1, of the Convention *ad referendum* concluded in the Second International Sanitary Conference of Washington, on October 14, 1905, speaking of the time when an area should no longer be considered infected, says that "each government may reserve the right to extend this period." The health officers of Panama have found it necessary to considerably extend that period as regards the detention of passengers coming from places where bubonic plague or yellow fever have prevailed, as well as the disinfection of baggage of passengers coming from places where the existence of bubonic plague is suspected; they have also prohibited the landing of merchandise which may be liable to produce infection.

III.—The sanitary conditions in all parts of the Republic and in the principal cities, Panama and Colon, are excellent. The projected improvements to be carried out in the cities of Panama and Colon are many and extraordinary, and it is with pleasure that I submit to my illustrious colleagues the reports published in "The Canal Record" of November 3d and 17th in regard to said measures.

IV and V.—Exact information in regard to all passengers arriving at the principal ports is always recorded. The Quarantine and Immigration Service in Colon publishes annually a comprehensive report on this subject. That of 1908 is very remarkable and interesting. I beg to submit to my illustrious colleagues a paper showing the death rate, the population, and special statistics in Panama and Colon.

VI.—There are no infected ports in the Republic. Passengers arriving at the Isthmus are examined by officers of the Public Health and Marine Hospital Service of the United States whenever they are present.

From the above you can judge the wonders realized in my country in this project of sanitation, thanks, undoubtedly, to the wisdom, the perseverance, and the power of the American Government, to which Panama intrusted at the dawn of its independence so important a service of public life. Twelve years have scarcely elapsed since that date, and to-day that proverbial and universal reputation of Panama as an unhealthy country has completely disappeared, and we can now affirm emphatically, without fear of exaggeration, that what was before a focus of infection of all known diseases is now a paradise from the point of view of sanitation, where men of all races, climates, and regions of the globe can immigrate, prosper, and be happy.

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QUARANTINE OPERATIONS IN COLON DURING 1908.

Number of ships inspected and admitted	792
Number of ships fumigated upon arrival	3
Number of ships fumigated before departure	1,371
Number of pieces of baggage disinfected	51,172
Number of members of crew examined	53,328
Number of passengers examined	104,500
Number of persons vaccinated upon arrival at the port	11,894
Number of persons vaccinated at the port of departure or during the voyage	16,262
Number of persons detained in the quarantine station to complete the incubation of yellow fever	2,107
Number of persons detained in the quarantine station to complete the period of incubation of bubonic plague	53
Number of persons detained on board ship	1,405
Number of persons arriving from foreign ports—cabin passengers 14,154, and steerage passengers 33,973	48,127
Number of persons sailing for foreign ports—cabin passengers 12,602, steerage passengers 15,006	27,608
Number of persons in transit	12,727
Number of persons in coast towns, examined	2,474
Number of persons in coast towns, not examined	2,092
Number of persons leaving Colon for coast towns	1,951
Number of persons disembarked during the month: for immigration into the Isthmus, 38,799; for Pacific ports, 3,914	42,693
Number of viséed bills of health	187
Number of persons recommended for deportation	115

IMMIGRATION STATISTICS RELATIVE TO COLON DURING 1908.

From—	Passengers. Cabin.	Steerage.	
European ports	498	1,471	
United States	8,742	874	
Jamaica and West Indies	1,820	11,124	
Guatemala	95	11	
Venezuela	46	26	
Colombia	520	1,617	
Cuba	145	211	
Costa Rica	1,057	1,442	
Bocas del Toro	129	2,345	
Coast towns	0	2,092	
	13,052	21,213	34,265

CONTRACT LABORERS:

From Barbados	2,229	
From Spain	1,989	
From Guadalupe	296	4,514
Total		38,779

Men	26,091	
Women	7,498	
Children	3,098	
Not classified	2,092	
		38,779

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DEATHS IN THE CITIES OF PANAMA AND COLON AND IN THE CANAL ZONE, 1908.

	Population.	Deaths.	Average per 1,000.
Panama	37,073	1,292	24.83
Colon	15,878	418	26.32
Canal Zone	67,146	1,273	18.95
	120,097	2,983	24.83

IMPROVEMENT THAT HAS BEEN ACCOMPLISHED.

Year.	Population.	Deaths.	Rate per 1,000.
1904	35,000	1,224	52.45
1905	42,699	2,793	65.41
1906	66,011	3,544	49.10
1907	102,133	3,435	33.63
1908	120,097	2,983	24.83

DEATH RATE AMONG EMPLOYEES OF THE CANAL COMMISSION AND OF THE PANAMA RAILROAD.

September:	Per 1,000.
1904	14.31
1905	32.40
1906	57.34
1907	28.63
1908	12.78
1909	12.76

AVERAGE OF SPECIAL DISEASES.

Dysentery	1906	69 deaths among 26,705 employees.
Dysentery	1907	48 deaths among 39,343 employees.
Dysentery	1908	16 deaths among 43,890 employees.
Malaria	1906	233 deaths among 26,705 employees.
Malaria	1907	154 deaths among 39,343 employees.
Malaria	1908	73 deaths among 43,890 employees.

Of typhoid fever there were in 1907, 98 deaths; in 1908, 19. Of pneumonia there were 431 deaths in 1906; 328 in 1907, and 93 in 1908. The last case of yellow fever in the Isthmus occurred in November, 1905. The last case of bubonic plague in the Isthmus took place in August, 1905. There have been no cases of smallpox since 1906.

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REPORT OF THE DELEGATES FROM THE UNITED STATES.

The delegation of the United States to the Fourth International Sanitary Convention of American Republics submitted the following reports provided for in the provisional program issued June 14, 1909:

REPORT OF SANITARY CONDITIONS BY SURGEON-GENERAL WALTER WYMAN, U. S. PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

I. REPORT ON SANITARY LAWS AND REGULATIONS ADOPTED IN THE UNITED STATES SINCE JANUARY 1, 1908.

In this summary I propose first to give an idea of the laws and regulations that have been passed since our last convention.

No special Federal laws in regard to sanitary matters have been enacted by the National Congress since the Convention of 1907, with the exception of two laws of local application to the District of Columbia. One of these Acts, approved April 20, 1908, authorized the Commissioners of the District to promulgate regulations governing the establishment and maintenance of private hospitals and asylums, and required these institutions to be licensed by the Commissioners in whom was also vested the power to revocate these licenses. The other Act approved May 13, 1908, providing for the registration of all cases of tuberculosis in the District, was patterned after the tuberculosis law, passed in the State of New York, and described below, the only important deviation from the same is the extension of the period allowed the physician to report cases under his care to 7 days instead of 24 hours.

Police power with respect to sanitation within the States has been, as is well known, reserved by the States themselves. In the 46 States and 2 Territories now forming the Union, a number of laws relative to public health have been passed during the last two years, the most important being briefly abstracted here:

Tuberculosis.—In the State of New York an act was passed May 19, 1908, making it the duty of every physician to report to the local health officer every case of tuberculosis known to him within 24 hours after this fact comes to his knowledge, every officer in charge of any hospital, dispensary, asylum, or other similar private or public institution being required to report likewise every patient with tuberculosis 24 hours after coming into his care or under his observation. Upon receipt of such information the health officer is to provide the physician with a printed form naming the procedures and precautions necessary or desirable to be taken on the premises of a tuberculous patient. If these instructions are not carried out by the physician this duty devolves upon the health officer. The premises left vacant by the removal or death of a person suffering with tuberculosis are not to be again occupied until properly disinfected, cleansed or renovated according to directions of the health officer. The physician in charge of the case, or in case he fails to do so the local health officer, must give proper instructions regarding safety of other individuals occupying the same house or apartment.

Laws similar to the above were passed in 1900 in Kansas, Maine, Michigan, and New Jersey.

Anti-spitting laws were passed in 1909 in Kansas, Maine, Michigan, and Pennsylvania.

Laws were passed in 1909 in Illinois and Minnesota, authorizing the establishment and maintenance of public tuberculosis sanatoria, while a law was passed in 1908 in Ohio directing the construction in every county of special hospitals for the care and treatment of tuberculosis patients.

In Vermont a law was passed in 1908 directing the State Board of Health to conduct a campaign of education regarding the best known methods of preventing and limiting the spread of tuberculosis by modern sanitary precautions.

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In Michigan, provision was made by law for the teaching in public schools of the principal modes by which each of the dangerous communicable diseases are spread, and the best methods for their restriction and prevention.

New Jersey made provision in 1909 for the employment by every school board of one medical inspector, or more if necessary, to examine every pupil in order to learn whether any physical defect exists, and keep a record of the growth and development of each pupil. This inspector is also required to instruct the teachers as to the methods employed to detect the first signs of communicable diseases and the recognized measures for the promotion of health and the prevention of disease.

In Minnesota legislation was passed in 1909 providing for the condemnation of any workshop, factory or place of business considered unhealthy or unsuitable by the Commissioner of Labor.

The Territory of Arizona limited by law the hours of labor for persons employed in laundries to 48 in a week, and the minimum quantity of air (600 cubic feet) to be afforded to every worker.

Provision was made for the application of the tuberculin test to cattle in Kansas, Minnesota, and Utah.

Contagious diseases.—Legislation was passed in the States of Maine, North Carolina and Vermont providing that boards of health should furnish diphtheria antitoxin free of charge, under certain conditions, to persons suffering from the disease. Iowa and Maine also made provision for the assistance by the local board of health of any indigent person or family placed in quarantine on account of any dangerous or contagious disease.

In Kansas the State Board of Health was charged by law with the sanitary supervision of all barber shops, barber schools, public bath houses, and was also empowered to make all necessary rules and regulations in order to prevent the spread of contagious and infectious diseases.

In Pennsylvania legislation was passed in 1909 requiring every physician to report all cases treated by them of certain communicable diseases, the health authorities being directed to quarantine all cases of contagious diseases such as diphtheria, measles, chicken-pox, smallpox, malarial, relapsing, scarlet, typhoid and yellow fevers, plague, cholera, cerebro-spinal meningitis, and to specify the manner in which the premises occupied by persons suffering with any of these diseases are to be disinfected after being vacated.

I will say, also, for the great State of Pennsylvania that they have a very good law, which is being carried out, in regard to reporting cases of sickness and acquiring morbidity statistics.

In Wyoming a law was enacted in 1909 empowering the State Board of Health to prescribe rules and regulations for the management and control of communicable diesases, such rules and regulations being later in the year issued by the Board. Similar regulations were issued in Montana by the State Board of Health in compliance with provisions of existing laws.

In Texas a law was passed providing for the erection of a home whereto all persons suffering with leprosy will be removed with a view to their isolation, care and treatment, and making it unlawful for any person to harbor or conceal lepers within the State.

Pure Food Laws.—Amendments to the existing laws were enacted in several States. Maine made provision for the proper cleansing and sterilizing of all vessels and utensils used in the manufacture, transportation, storage and sale of milk and cream and the maintenance of sanitary conditions in places where milk is handled. The Commissioner of Agriculture was also directed to investigate the processes involved in the production and sale of milk, butter and similar products, analyzing samples of articles and publishing the results of the analyses made, all milk dealers being required to register at his office.

By a law passed in 1909 New Jersey requires every physician attending a person sick with typhoid fever, dysentery, scarlet fever, diphtheria or tuberculosis on any premises where milk is produced for sale, or distribution, to report the case to the State Board of Health within 12 hours after his first attendance upon the patient. In the same State another law was passed in the same year stating the sanitary conditions to be observed in all places where food intended for sale, or distribution, is prepared, and prohibiting the employment on such places of any person affected with a communicable disease.

Registration of Births and Deaths.—In 1909 laws were passed in Missouri and in Arizona providing for the immediate registration of all births and

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deaths. North Carolina provided for the registration of deaths in municipalities of 1,000 population and over.

Now, that is a brief summary in regard to the passage of laws for the different States of the United States. You will see that very important work is going on in the several States and the work of education in public health matters is advancing very rapidly throughout the States and municipalities of the country.

II. REPORT ON MANNER IN WHICH THE RESOLUTIONS ADOPTED IN PREVIOUS SANITARY CONVENTIONS OF THE AMERICAN REPUBLICS HAVE BEEN PUT IN PRACTICE IN THE UNITED STATES.

Now, with regard to certain of the epidemic diseases—special diseases with which the United States has had to deal—I beg leave to report that all quarantine laws and regulations of the United States bearing on plague, cholera, and yellow fever conform strictly to the Convention signed at Washington, October 14, 1905, no changes having been made in them during the last two years.

Yellow Fever.—In full accordance with Section II, Chapter I of this Convention, and on account of the continued appearance of cases of yellow fever in various parts of the island of Cuba, a case having occurred as late as February 18th, quarantine was imposed April 6, 1908, upon ports in the island, with the exception of an area comprising the city of Habana, Mariano and Base Camp Columbia. Subsequent cases occurred in Santiago on April 21st, May 13th, June 4th and 11th, and July 7th, while the trend of facts seemed to indicate that the disease had been prevalent at Daiquiri since April, and subsequent reports of cases went to prove that the Province of Santiago was infected with yellow fever. In consequence of a secondary case reported on September 14th from a district of Habana where mosquitoes were abundant, quarantine restrictions were put into effect against departures from Habana for Southern ports in the United States. These measures were made as lenient as consistent with public safety. There were no obstacles thrown in the way of immune passengers provided they presented to the officer of the Public Health and Marine Hospital Service detailed at Habana the proofs of their immunity. In the case of non-immune passengers they were detained in the camp at Triscomia, in the harbor of Habana, six days if going to Florida, five if bound for other Southern ports. The restrictions against Habana were removed 18 days from the date of the above-mentioned case, and against the other ports as soon as satisfactory evidence of sanitary conditions was obtained. The quarantine was raised finally from Santiago Province, which was the last area under suspicion October 20, 1908, from which date no special quarantine measures have been enforced with respect to Cuba. All of the steps in this transaction were taken after careful consideration of the provision in Article IX of the Convention of Washington with regard to yellow fever and the further explanation of its contents by the Delegate from Cuba as follows:

"Now we have added here the provision that the authorities might extend that period of expectancy or waiting before declaring a place free from yellow fever; that they may extend it *ad libitum*, because we have considered that at certain places where yellow fever regularly prevails—that is, is endemic—the number of immune people is so great that there might be a large number, or a quite considerable number, of mosquitoes lurking in that locality without invoking yellow fever because of the immunity of the inhabitants, and we might be surprised at any time by a case of yellow fever. We have, therefore, allowed this freedom to the authorities to extend this period—to extend it the whole length of the yellow-fever season, or the whole summer if they desire. At any rate, we have given them the fredom to extend this period."

For the purpose of supervising the sanitation of ships bound for the United States eight officers of the Public Health and Marine Hospital Service have been stationed at fruit ports in Central America and the West Indies, thus making possible the entry of fruit vessels to the United States without detention at quarantine stations. It is pleasant to note the decrease of yellow fever in the last two years, no cases having occurred in the United States, these results being undoubtedly due to the greater attention paid to sanitary matters at ports, the close observance of quarantine regulations, and the great activity also of sanitary authorities in Mexico, Brazil, Canal Zone, and Cuba.

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I will say that it must have been a matter of great gratification to those members who are here in this Convention that the last season has been specially marked by the absence of yellow fever in all of our territories. I think the season of 1909—summer and fall of 1909—has been a remarkable one and one upon which we can all look with special gratification, because it does seem as if we were conquering this dread disease of yellow fever. If you will cast your eyes over the different parts of the Western Hemisphere, mentally, where yellow fever has been in the habit of prevailing, you will find that it has not prevailed in any of those places during the past season, at any rate in an epidemic form, with perhaps one possible exception, but the exception is enough to call attention to the general fact.

Cholera.—The presence of cholera in Russia in 1908 and the fear of its introduction in the United States on account of the considerable immigrant traffic from that country caused the Public Health and Marine Hospital Service to station one of its officers at Libau, the only port from which vessels carrying immigrants sail direct for the United States. The outbreak of cholera which occurred in Rotterdam, Holland, August 26, 1909, also caused the detail of an officer to that place to investigate conditions. The outbreak terminated, however, on September 11th, there being 13 cases and 5 deaths. In the Philippines, in the fiscal year ending June 30, 1909, there were 23,094 cases of cholera, of which 981 cases occurred in the city of Manila. The precautions taken and the vigilance of quarantine officers at home ports were effective in each of these cases in preventing the entrance of cholera in the United States, and the prevention of its spread to other ports, both domestic and foreign.

Plague.—The measures mentioned in the report of the Delegates of the United States to our last Convention for the eradication of plague on the Pacific Coast were continued by the Public Health and Marine Hospital Service. No cases of human plague occurred at San Francisco after February, 1908, no cases at Oakland after July 17, 1908, and the last case of rat plague found was on October 23, 1908, at San Francisco, and on December 1, 1908, at Oakland. At Seattle no case of human plague has occurred after October 25, 1907, and no case of rat plague after September 26, 1908. On January 22, 1908, conditions had improved to such an extent at Seattle to justify the Public Health and Marine Hospital Service in turning over the municipal inspection and policing to the special sanitation department of the city to be carried on under principles suggested by the Service, the pathological and bacteriological work, including the examination of rats sent to the laboratory to be continued, however, by officers of the Service. As stated in the last report, the measures taken consisted chiefly in the improvement of sanitary conditions and the destruction of rats. Some practical results of the campaign of education carried on systematically were the installation of garbage cans in practically every home in San Francisco and Seattle in order to facilitate the disposal of refuse, the rebuilding of stables in San Farncisco with a view to making them rat-proof, and the provision made by the supervisors of the city for the complete rearrangement and reconstruction of the sewer system and the installation of sewers in districts lacking that service. The total number of rats exterminated at San Francisco and Oakland from the date of the outbreak of plague to June 30, 1909, may be roughtly estimated at more than one million. Of this number 423,346 were caught and 200,871 examined. During the same period 92,750 rats were caught at Seattle, and 89,652 examined.

One of the most important duties devolving upon the Public Health and Marine Hospital Service in connection with the epidemic was the thorough fumigation of vessels leaving San Francisco and Seattle in order to prevent the spread of infection to other places. Up to June 30, 1908, 2,796 vessels were disinfected at San Francisco and 145 at Seattle, this work being so effective and far-reaching that there is not a single record of a case of plague traceable to either San Francisco or Seattle having occurred in any one of the many cities connected by sea with these two places.

The important discovery that ground squirrels can be infected with plague was made soon after the mitigation of the epidemic at San Francisco when when a boy bitten by a sick squirrel at Los Angeles, Cal., developed symptoms of plague. Of 423 ground squirrels from Contra Costa County, Cal., which were the subject of laboratory investigation, four gave positive evidence of plague infection. About May 1, 1909, an organized campaign was inaugurated by the Service for the destruction of these animals. This work will have to be

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continued for an indefinite period owing to the habits of these animals and their wide distribution. Up to October 30, 1909, 44,843 squirrels had been destroyed, out of which number 298 were found to be infected. And we have been continuing and are still continuing a warfare against ground squirrels in the counties of California, and we find them infected. We are examining all of them.

In order to prevent the further importation of plague and avoid all interruption of commerce with these sister Republics officers of the Public Health and Marine Hospital Service have been detailed to Guayaquil, Callao, Rio Janeiro and La Guayra, with special instructions given to observe a close surveillance on ships bound for the United States and cause the destruction of rats found aboard. By request of the Venezuelan authorities an officer of the Service was permanently stationed at La Guayra and provided with the laboratory equipment necessary for a prompt diagnosis of the disease.

Now, I will not detain you longer by reading all that I have prepared, but I will only mention three or four special diseases of great special interest in the United States during the last year or two.

One is pellagra, a disease which I find, Mr. President, is unknown here, but it is very common in certain parts of Europe, particularly in Italy, and which we find to exist in the United States. The great fear is that it may become habitual to the United States, so to speak, just as it has become in Italy, and we are making earnest war against the disease and taking preventive measures to prevent its getting a foothold and the consequent death and misery which it produces. A scientific commission for the purpose has been appointed and they are now at work upon it.

Another disease of very great interest is the hookworm disease, which I believe you do have in this country; and I take pleasure in calling attention to the great gift of Mr. Rockefeller of one million of dollars to assist in the eradication of the hookworm disease in the South. He has given this money, not establishing a fund the interest of which shall be devoted to this special work, but he has given the fund outright, and it is expected that $200,000 will be expended every year until the whole amount is expended. The method of using that fund at the time I left the United States was still a matter for consideration and had not yet been fully determined upon. Dr. Stiles, who has particularly devoted himself to the hookworm disease, is on the Commission. He is the medical zoologist of the Public Health and Marine Hospital Service, and will lend himself without doubt earnestly to the work of eradication of hookworm disease.

I have here some pamphlets with the regard to the hookworm disease, as well as with regard to pellagra, which I will just pass around for observation.

Now, Mr. President, I feel that I have taken up all the time allotted to me, and it will not be necessary at this time to state all that has been done in detail. I have already mentioned the more important of the recent laws of the different States with regard to these diseases, reporting, and the measures for the prevention of the spread of pellagra, hookworm disease, tuberculosis and typhoid fever, that is, the principal diseases which have received the attention of the States and National Government during the last year.

It is a great pleasure to think that we need not devote our attention, as we were formerly compelled to, to the ordinary contagious diseases, such as smallpox, cholera, and even the bubonic plague. Those diseases are now practically understood as regards their nature and methods of dealing with them, and we, in the United States, are devoting greater attention and more thought and study to the other diseases such as I have just mentioned. (Applause.)

SOME PRESENT PUBLIC HEALTH PROBLEMS IN THE UNITED STATES.

PELLAGRA.

This disease, which has prevailed in Southern Europe for more than a century, is now attracting widespread attention in the United States, following the appearance of a considerable number of cases in different parts of the country.

The occurrence of pellagra was first reported in Alabama in May, 1907, only sporadic cases having been reported before that date, one of them from Georgia

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as early as 1902. When the first cases of the disease were reported from Alabama, where it assumed the character of an epidemic at the time, an officer of the Public Health and Marine Hospital Service, who had had extensive service in Italy, invited attention to the importance of the subject in relation to the public health, and recommended that investigations be undertaken. As a result, the Surgeon-General called for and received a report upon the disease with particular reference to its prevalence in Alabama.

Subsequently, reports of the occurrence of pellagra in other States began to appear, and it became evident from the studies made that the new disease was a matter of serious concern for the United States. While pellagra was at first reported only from the Southern States, reports subsequently received showed the existence of the disease in no less than 18 States.

In the summer of 1908 a précis on pellagra by an officer of the Public Health and Marine Hospital Service was published and distributed for the use of health officials. Following the appearance of this publication, considerable interest in the new disease was evinced by medical practitioners and laymen in the localities affected, the health authorities having recognized from the beginning the importance of the health problem that had appeared. Systematic investigations of the disease in its clinical, epidemiological, pathological, bacteriological and therapeutic aspects have been conducted by the Public Health and Marine Hospital Service during the years 1908 and 1909. In order to enlarge the scope of the investigations, a pellagra commission was appointed consisting of seven scientific workers, who will devote their best energies to different phases of the problem with the view to their elucidation.

Knowledge of the disease indicates that it is not communicable and that it is in some indefinite manner associated with the consumption of diseased corn. This latter probability has an important bearing both from the standpoint of the public health and economic interests, and the Bureau of Plant Industry of the United States Department of Agriculture has undertaken an investigation of corn with a view to determining its possible relation to the development of pellagra.

On account of lack of knowledge of pellagra and because of its increasing prevalence, fear of the disease has been engendered in certain localities, giving rise to the demand for segregation of those afflicted. In the absence of evidence that communicability plays a part in the continued prevalence of the disease, however, it has not been deemed advisable or necessary by the National Government to institute quarantine procedures.

The presence of pellagra in any country must be regarded as a public health problem of national consequence. This does not mean, however, that there is cause for panic, but it should stimulate interest in the disease which would resolve itself into reasonable prophylaxis and improved sanitation.

TUBERCULOSIS.

The United States has done and is now doing its share in the world-wide campaign waged against this disease. The great interest taken in this subject was demonstrated in the success attending the International Tuberculosis Congress, held in Washington, D. C., in October, 1908, under the auspices of the United States Government. Its deliberations were undoubtedly very valuable, opportunities being given to all the delegates for a full discussion of modern scientific ideas as to the methods of dealing with tuberculosis. The organization of the Congress included seven sections, Section VI being devoted to the consideration of State and municipal control of tuberculosis. Its meetings covered practically all phases of the subject, and there is no doubt that it had a great influence in calling the attention of the public to modern methods of dealing with tuberculosis and paving the way for sanitary legislation and its enforcement in the future.

Good work is being continuously done by both private and official initiative for the study and prevention of tuberculosis. The considerable and important legislation on the subject enacted by the several States is reviewed elsewhere. It is pleasant to note that State associations are rapidly being formed to check the progress of the disease, and the results already obtained may be appreciated from the fact that the death rate per 100,000 of estimated population credited to tuberculosis, which was as high as 183.6 in 1907 fell to 173.9 in 1908. The most effective means of education yet devised have been found to

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be free exhibitions in combination with which demonstrations and popular lectures are given and literature is distributed.

The problem of tuberculosis among colored people is one of serious importance, this disease causing nearly four times as many deaths among that race as among white people. An officer of the Public Health and Marine Hospital Service, lecturing before a negro farmers' conference last March, suggested that colored anti-tuberculosis leagues be organized in the States, and outlined a working plan for such leagues. The suggestion was received with favor and heartily endorsed at the conference of State and Territorial health officers held at Washington in 1909. At this time five leagues with branches in colored churches had been organized in different States. This plan, it is believed, will aid health authorities in the campaign against tuberculosis, and beneficial results may be expected from such co-operation. It provides for the rendering of financial aid by the negroes themselves to those of their own race who are afflicted with the disease, and its educational features must of necessity cause an improvement in the conditions under which the negro lives.

III AND V. ABSTRACTS OF REPORTS IN REGARD TO SANITARY CONDITIONS IN AMERICAN PORTS (PREPARED BY OFFICERS OF THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE ON INFORMATION FURNISHED BY LOCAL AUTHORITIES).

NEW ORLEANS, LA.

WATER SUPPLY.

The Sewerage and Water Board has now in operation a purification plant with a capacity for about 40,000,000 gallons of water per day, and house connections are being made as rapidly as possible. When the connecting work is completed, it is intended to abolish the use of cisterns, experience having shown that they serve as breeding places for mosquitoes unless carefully screened.

SEWERAGE.

The above-mentioned Board has also completed 325 miles of sewers, and is approaching the termination of its task, only fifty miles of sewers remaining to be built.

DRAINAGE.

Seven huge drainage pumps lift the water from drainage canals over the protection levees at the rear of the city and discharge into the lakes and bayous. Sixty per cent of all the proposed canals and conduits are in operation, and as this work advances the old time common event of a flooded city becomes more and more rare.

PAVEMENT.

Extensive additions to the paved area are continuously being made, but a general system cannot be adopted until the entire completion of the drainage, sewerage and water works now under construction.

MOSQUITO DESTRUCTION.

Under the provisions of Municipal Ordinance of September 27, 1905, an active anti-mosquito campaign is carried on under the direction of the local board of health from February 1st to November 30th. A special body of men is in charge of this work, which consists chiefly of three general inspections with a view to finding out and remedying defective conditions throughout the city.

PHILADELPHIA, PA.

The death rate for the year 1908 was the lowest ever known in the city. The typhoid fever mortality was especially low, this decrease being due largely

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to the filtration plants which have been gradually installed during the last few years. The last plant was put into operation during the present year, so that the whole city is now supplied with filtered water. Sixty-five per cent of the water supply is obtained from the Delaware River and the remainder from the Schuylkill River. It is claimed that the filtration plants of the city are taking out nearly 100 per cent of bacteria. The records for previous years, when the city was only partially provided with filtration plants, show that there were 6½ cases of typhoid fever in the filtration districts to 100 cases in the non-filtration districts, a reduction as compared with the previous years of about 80 per cent where filtered water was used. The reduction in the number of typhoid fever cases is also partly due to the fact that physicians are required to immediately report all cases of this disease to the Department of Health as soon as the diagnosis is made, and inspectors are sent to trace the source of infection and to see that precautions are taken to prevent the spread of the disease.

The city government now has thirty beds for advanced cases of tuberculosis for females, and 100 beds for males at the Philadelphia General Hospital. The city has also erected a sanitorium with a capacity of 100 beds, and an infirmary with a capacity for 30 patients, both for males. Tuberculosis patients may also be sent to the sanatoria erected by the State in accordance with laws approved in 1905 and 1907.

The sewage of Philadelphia is at present discharged into the neighboring rivers. Experiments are now being made with a view to disposing of it in some other way, but no plan has as yet been decided upon. An Act of the Legislature, passed in 1907, to go into effect in 1912, compels all cities in the State to erect plants for the disposal of their sewage.

BALTIMORE, MD.

The death rate for the past six years has shown a steady decrease, falling from an annual rate of 20 per thousand in 1904 to 18.21 per thousand in 1908. The figures for the present year are, of course, not available, but the indications are for a further drop.

WATER SUPPLY.

The city's water supply is obtained from the Gunpowder River and Jones' Falls (surface water). This is now considered to be insufficient, and the city is expecting to begin at an early date the construction of works that will increase it. A slow sand filter will probably be constructed at the same time.

SEWERAGE.

The city is now about completing the expenditure of a ten-million-dollar loan for the construction of the sanitary sewerage system. A small part of this money has been used in constructing the necessary storm water sewers. Contracts have been let for the construction of the outfall (this will consist of a septic tank and sprinkling filter beds) and the pumping station, which will connect the low and high service sewers. The low incepting sewer has already been constructed, and in the eastern section of the city many of the laterals have been completed and will be ready for use as soon as the pumping station and the outfall are completed.

SEATTLE.

DEPARTMENT OF HEALTH.

The reorganization of the Department of Health and Sanitation was accomplished in March, 1908, when advantage was taken of the more recent advances in municipal sanitation to establish a department that ranks with the best in the United States. The drop in the death rate from 9.27 in 1907 to 7.35 in 1908 is claimed to be due to the sanitary campaign begun in the fall of 1907 and continued to this day.

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SCHOOL INSPECTION.

A system of medical inspection of the pupils has been established by the Health Department. Ten physicians and three nurses conduct the inspection, each school being visited once a week. A physical record of each child is kept on a card from his entrance to school until he graduates or leaves. Children with contagious diseases are excluded from school and readmitted only on permission of the medical inspector. Vaccination is a compulsory condition of entrance to school. Physical defects or other diseases than contagious ones are noted and a card sent to the parent or guardian calling attention to the child's condition, and if treatment is instituted a return card is filled out by the attending physician.

SANITARY INSPECTION.

The chief sanitary engineer has charge of the sanitary inspectors, market, milk, meat and plumbing inspectors, watershed patrol and the rat trappers and poisoners.

A house to house canvass is made by the sanitary inspectors who report upon every feature of the sanitary arrangement and condition of each house, such as drainage, sewerage, plumbing, ventilation and storage and disposal of garbage and rubbish. The abatement of nuisances is effected by verbal or written notice, and by prosecuting the owner or ordering the premises vacated if the notice is disregarded. Permits for the construction and repair of plumbing are issued by the sanitary department. A plumbing inspector makes a preliminary inspection when the plumbing has been roughed in, and a final inspection upon the completion of the work.

WATER SUPPLY.

The water supply of the city of Seattle is from the Cedar River, the source of which is at an approximate elevation of six thousand feet above city in the Cascade Mountains to the southeast of Seattle. The water is brought about twenty-eight miles to the city by gravity through wood-stave pipes. There are in service about four hundred miles of water mains which serve about 37 per cent of the city. It is expected to extend this service to the entire city during the coming year.

The watershed from which this supply is obtained contains about 140 square miles. The city has acquired title to about twelve square miles and eighty-two square miles are under condemnation proceedings. This will give the city practical control of the watershed as the balance of the land is for the most part either incapable of improvement or in the Government reserve. The policing of this section is in charge of the city health department and inspectors patrol the course of the river with a view to the prevention of pollution of the city's water supply.

DISPOSAL OF WASTE.

The city of Seattle produces about 200 tons of waste daily, including ashes, manure, rubbish, table refuse, etc. The ultimate disposal of this waste is a problem not as yet solved by the municipality. The waste is collected by private wagons, licensed by the city, the householder paying a weekly sum for the service.

In December, 1907, the city completed the erection of a garbage incinerator of the Meldrum type at a total cost, exclusive of grounds, of $36,134.50. This incinerator has a rated capacity of 67 tons of 2,000 pounds for twenty-four hours, and uses no fuel other than that contained in the refuse. During the past year this incinerator has burned on an average 70 tons daily, at an average cost of fifty cents per ton. Of the remainder of the city's waste it is estimated that about 70 tons is dumped on the tide flats and burned in the open, and the balance disposed of by private burning, dumping into Puget Sound or on vacant lots.

SEWAGE DISPOSAL.

The sewerage system of the city of Seattle is known as the "combined gravity system." That is, one line of sewer pipe is laid in street or alley, to receive both drainage from private premises and from the streets, and flows by gravity to its outlet, which is in deep water in Puget Sound, far enough

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from shore so as not to create a nuisance at the shore line. This system has proven very satisfactory.

The city of Seattle has an area of about sixty square miles, of which about twenty-two and one-half per cent is being served by sewers. There are 245 miles of sewers in the city. When a sewer has been laid in any street or alley and accepted by the city, it becomes incumbent upon all abutting property to connect therewith, as provided by city ordinance. Where there is city water service, but no sewer near enough for direct connection, owners are required to install proper cesspool or septic tank to receive the waste matter from their houses. In parts of the city where there is no water service vault toilets are allowed.

Boston, Mass.

WATER SUPPLY.

Water is procured from three sources, Lake Cochituate, Sudbury River, and the south branch of Nashua River. The metropolitan water system consists of a series of reservoirs, aqueducts and distributing station, supplying eighteen municipalities in the vicinity of Boston. About 25,000,000 gallons are supplied daily. There is no filtration plant for the general supply, but water obtained from some portions of the watershed, especially liable to pollution, is filtered before being admitted to the reservoirs. A sanitary inspection of the watershed and reservoirs is maintained to guard against sources of pollution.

SEWAGE.

The sewage disposal is accomplished by an elaborate and extensive system of engineering works consisting of main and intercepting sewers, tunnels, siphons, pumping stations, reservoirs and outfall sewers. Briefly stated, the sewage is screened, pumped into deposit sewers, conveyed to reservoirs and discharged into outfall sewers at the entrance of Boston Harbor. The sewage is stored in the reservoirs during flood tide and the latter part of the ebb tide, and is discharged during the first two hours of the ebb tide. The outfall sewers discharge sewage at points approximately five miles from the water front of the city. The sludge from the deposit sewers is collected periodically, placed in scows and towed to sea.

Savannah, Ga.

The death rate for the year 1908 was the lowest in the history of the city.

In the year 1908 a laboratory was established for bacteriological, chemical and pathological work and the study of problems of sanitary science. This institution places at the disposal of local physicians free of charge the following opportunities:

Examinations of the throat for diphtheria cultures.

Examinations of the blood for malarial parasites, and for the Widal reaction in cases of suspected typhoid fever.

Examinations of sputum for tubercle bacilli.

Examinations of dogs for rabies.

Examinations of feces for ova of hookworm.

Special examinations of water, ice, milk and food used in the city.

IV. REPORT RELATIVE TO THE REGISTRATION OF THE MOVEMENT OF POPULATION AND THE RATE OF MORTALITY IN THE UNITED STATES DURING THE YEAR 1908. (COMPILED CHIEFLY FROM DATA APPEARING IN CENSUS BULLETIN NO. 104, 1909.)

The *registration area* of the United States for which data are available for the year 1908 comprises only those States and separate cities having registration of deaths based upon the requirement of compulsory burial permits. Seventeen States, namely: California, Colorado, Connecticut, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, South Dakota, Vermont, Washington, Wisconsin, the District of Columbia, and 74 cities in non-registration States make up this area whose total population was estimated at 45,000,000, or over one-half of the total

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estimated population of the United States proper. The total number of deaths returned for the year was 691,574, a rate of 15.4 per 1,000 of estimated population. The year was one of remarkably low mortality, being marked by a general absence of severe epidemics and unusual mortality from other causes, the death rate being in fact the lowest ever occurring in the United States.

The proportional mortality among females was slightly larger than in 1907, while the actual number of deaths of males was less than for 1907. The percentage of deaths of infants under one year was somewhat increased, but the ratios for infants from one to four were practically identical with those of 1907. The subsequent quinquennial periods show a close agreement, the distribution being slightly more favorable for the year 1908 for the ages 15 to 49 years. About one-fifth of all deaths were of infants under one year, and over one-fourth (nearly 200,000 deaths) of children less than five years. It is well known that the general death rate of a country is largely dependent upon its infant mortality, the death rates of infants and young children being high and affecting numerous elements of the population. It is expected that much attention will be given in the United States to this subject in the near future. The possibility of great saving of life during infancy and early childhood deserves careful consideration, and there is reason to believe that, even with the means at our disposal, much may be accomplished at present. It is probable that of the 200,000 deaths of infants in the registration area of the United States a saving of a large number could be effected if proper sanitary measures were generally understood and practiced.

The death rates of the individual States vary from 18.4 for California to 10.1 for South Dakota. California, however, and likewise Colorado suffer unduly in comparison with other States, owing to the fact that many invalids from other parts of the country resort to them in search of health, and a great proportion of the mortality could no doubt be traced to recent residents.

The death rates per thousand population in the larger cities were as follows:

	1907	1908
New York	18.5	16.8
Chicago	15.3	14.0
Philadelphia	18.7	17.4
Boston	19.2	19.1
New Orleans	24.0	22.7
St. Louis	15.7	14.5
Pittsburg (including Allegheny)	18.3	16.5
Baltimore	19.9	18.3
Washington, D. C.	20.3	19.3
Detroit	16.5	15.6
Minneapolis	10.4	10.3
Milwaukee	14.4	13.6
Omaha	12.4	12.1
Memphis	19.0	17.5

CAUSES OF DEATH.

	Number of Deaths, 1908.	Death rate per 100,000 estimated population.	
		1907	1908
Typhoid fever	11,375	30.3	25.3
Measles	4,611	10.3	10.2
Scarlet fever	5,577	10.3	12.4
Whooping cough	4,969	11.6	11
Diphtheria (including croup)	10,052	24.3	22.3
Tuberculosis (all forms)	78,289	183.6	173.9
Cancer	33,465	73.1	74.3
Heart disease	60,038	141.7	133.3
Pneumonia (all forms)	61,259	161.2	136.0
Diarrhea and enteritis	52,213	116.7	116.0
Bright's disease	39,203	94.6	87.1
Suicide	8,332	16.2	18.5
Accident	44,087	109.7	97.9

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AGES OF DECEASED.

	Males	Females
Under 10 years	112,638	93,049
10 to 14 "	5,437	5,151
15 to 19 "	9,317	8,828
20 to 24 "	14,503	12,634
25 to 34 "	31,642	26,049
35 to 44 "	35,741	26,013
45 to 54 "	39,120	27,725
55 to 64 "	41,460	32,695
65 and over	84,961	83,710
Unknown	678	223
Total	375,497	316,077

OCCUPATIONS AND CAUSES OF DEATH.

In an effort to meet the urgent demand for information in regard to the relation of occupation to mortality some statistics covering the year 1908 have been prepared by the Bureau of the Census. The information furnished is necessarily incomplete, comprising only 74.6 of the total number of deaths reported of male persons 10 years or over, and 11.7 of the deaths of females of the same age, and valuable as the data given may be, they can only be considered as paving the way for more complete and accurate statistics of the mortality of occupations.

From the imperfect knowledge so far gained, some very important facts can be gathered, however. The figures collected show that in the registration area of the United States 30.9 deaths out of every 100 deaths of occupied males who died during the year 1908 between the ages of 25 and 34 years were caused by tuberculosis of the lungs, or nearly 1 death for every three. In the same age period this disease was responsible for 41.9 deaths out of every 100 deaths of bookkeepers, clerks and copyists; 40.1 per cent of the barbers and hairdressers; 40.9 per cent of the servants; 44.1 per cent of the boot and shoemakers; 49.2 per cent of the compositors, printers and pressmen; 41.2 per cent of the tailors; while its ravages among farmers fall down to 25.6, and among miners and quarrymen to 5.3 per cent. It is curious to note that physicians and surgeons are at all ages below the average as to deaths caused by tuberculosis, and show the smallest or near to the smallest proportion of all professions between the ages of 35 and 54.

VI. MEASURES FOR THE PROTECTION OF PASSENGERS WHO EMBARK IN VESSELS FROM INFECTED PORTS.

The regulations deemed advisable by the Public Health and Marine Hospital Service for the protection of passengers may be resumed as follows:

1. When practicable, passengers should not ship from an infected port.
2. No person suffering from a quarantinable disease, or scarlet fever, measles, diphtheria, or other communicable disease, should be allowed to ship.
3. Passengers, for the purposes of these regulations, are divided into two classes: cabin and steerage.
4. Steerage passengers and crews coming from cholera-infected districts should be detained five days in suitable houses or barracks located where there is no danger from infection, and all baggage disinfected.
5. Steerage passengers and crews from districts not infected with cholera, shipping at a port infected with cholera, unless passed through without danger of infection and no communication allowed between such persons and the infected locality, should be treated as those in the last paragraph.
6. Cabin passengers coming from cholera-infected districts embarking at a clean or an infected port should produce satisfactory evidence as to their exact places of abode during the five days immediately preceding embarkation. And if it appears that they or their baggage have been exposed to infection the baggage should be disinfected and the passengers detained under medical supervision a sufficient time to cover the period of incubation since last exposure.

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7. Steerage passengers and crews who, in the opinion of the inspecting officer, have been exposed to the infection of yellow fever, should be held under medical observation in a place free from danger of infection for a period of five days, or six in some cases, before embarkation.

The cases where we apply the six days detention is, for example, between Havana and Key West. It only takes a ship about five hours to make this trip, and if we find that Cuba is infected with yellow fever we detain passengers six days at Key West, inasmuch as they arrive in the United States the same day they leave Havana. Now, the foregoing regulations are required at all foreign ports by the United States Government of ships on their departure for any port in the United States. The responsibility for their enforcement at such ports devolves upon the U. S. Public Health and Marine Hospital Service officers detailed for duty there.

8. Steerage passengers and crew, coming from districts where smallpox prevails in epidemic form, or who have been exposed to smallpox, should be vaccinated before embarkation, unless they show evidence of having acquired immunity to smallpox by previous attack or recent successful vaccination.

9. Steerage passengers and crew who, in the opinion of the inspecting officer, have been exposed to the infection of typhus fever, should not be allowed to embark for a period of at least twelve days after such exposure and the disinfection of their baggage.

10. Steerage passengers and crew who, in the opinion of the inspecting officer, have been exposed to the infection of plague should be held under medical observation in a place free from danger of infection for a period of seven days before embarkation, and their baggage disinfected.

11. Cabin passengers coming from plague-infected districts, whether embarking at a clean or an infected port, should produce satisfactory evidence as to their exact places of abode during the seven days immediately preceding embarkation. And if it appears that they or their baggage have been exposed to infection the baggage should be disinfected and the passengers detained under medical supervision a sufficient time to cover the period of incubation since last exposure.

12. Should quarantinable disease appear in the barracks or houses in which passengers are undergoing detention, no passenger from said houses or barracks who has been presumably exposed to this new infection should embark until after the expiration of the period of incubation of the disease in question subsequent to the last exposure to infection and the application of all necessary sanitary measures.

13. In a port where any quarantinable disease prevails the personnel of vessels should remain on board during their stay in such port.

14. Passengers and crews, merchandise and baggage, prior to shipment at a non-infected port, but coming from an infected locality, should be subject to the same restrictions as are imposed at an infected port.

15. The master of a vessel should observe the following measures on board his vessel:

(a) The water-closets, forecastle, bilges, and similar portions of the vessel liable to harbor infection should be disinfected and frequently cleansed.

(b) Free ventilation and rigorous cleanliness should be maintained in all portions of the ship during the voyage, and measures taken to destroy rats, mice, fleas, flies, roaches, mosquitoes, and other vermin.

(c) A patient sick of a communicable disease should be isolated and one member of the crew detailed for his care and comfort, who, if practicable, should be immune to the disease.

(d) Communication between the patient or his nurse and other persons on board should be reduced to a minimum.

(e) Used clothing, body linen, and bedding of the patient and nurse should be immersed at once in boiling water or in a disinfecting solution.

(f) The compartment from which the patient was removed should be disinfected and thoroughly cleansed. Articles liable to convey infection should remain in the compartments during the disinfection when gaseous disinfection is used.

(g) Any person suffering from malaria or yellow fever should be kept under mosquito bars, and the apartment in which he is confined closely screened with mosquito netting. All mosquitoes on board should be destroyed by burning pyrethrum powder (Persian insect powder) or by fumigation with sulphur.

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Mosquito larvae (wigglers or wiggle-tails) should be destroyed in water barrels, casks, and other collections of water about the vessel by the use of petroleum (kerosene); where this is not practicable, use mosquito netting to prevent the exit of mosquitoes from such breeding places.

(h) In the case of plague special measures must be taken to destroy rats, mice, fleas, flies, ants, and other vermin on board.

(i) In the case of cholera, typhoid fever, or dysentery, the drinking water should be boiled and the food thoroughly cooked. The discharges from the patient should be immediately disinfected and thrown overboard.

16. An inspection of the vessel, including the steerage, should be made by the ship's physician once each day.

17. Should cholera, yellow fever, smallpox, typhus fever, plague, or any other communicable disease appear on board a ship while at sea, those who show symptoms of these diseases should be immediately isolated in a proper place; the ship's physician should then immediately notify the captain, who should note same in his log, and all of the effects liable to convey infection which have been exposed to infection should be destroyed or disinfected.

18. The hospital should be disinfected as soon as it becomes vacant.

19. The dead should be enveloped in a sheet saturated with one of the strong disinfecting solutions, without previous washing of the body, and at once buried at sea or placed in a coffin hermetically sealed.

The foregoing regulations are now required by the United States Government to be complied with by vessels in foreign ports before their departure for any port in the United States. The responsibility for their enforcement in such ports devolves upon officers of the Public Health and Marine Hospital Service detailed for duty in the American Consulates or upon the consular officers issuing the bills of health in ports where medical officers are not on duty.

VII. DISEASES NOT INCLUDED IN THE CONVENTION OF 1905 AT WASHINGTON, WITH SOME REMARKS ABOUT LEPROSY.

The time has apparently arrived for a concerted action on this continent of ours in regard to such diseases as trachoma, favus, beri-beri, and leprosy.

In the paper regarding trachoma, presented by Surgeon-General Wyman at the Conference at Mexico, mention was made of the fact that since 1897 trachoma has been considered as a "dangerous contagious" disease in the United States, and in accordance with the immigration law of 1891 all arriving aliens so afflicted have been refused entrance to the country. Immigrants suffering from any other of these diseases are likewise refused admittance under the above law.

The reports submitted by the Delegates to the previous Convention showed that trachoma and beri-beri were, at the time, practically unknown in Colombia, Costa Rica, Ecuador, Guatemala, Honduras and Salvador, while laws similar to those of the United States were enforced against the introduction of trachoma in Brazil, Cuba, and Mexico, and also in regard to beri-beri in Mexico and Uruguay.

In regard to leprosy, a co-ordinate action is especially desirable. The realization has become more and more general that in order to check the progress of this loathsome disease it is not enough to prevent the introduction of new cases from countries like China, Japan and India, where it is endemic, but that the control of existing cases must be secured by the one policy that has proved successful, namely, segregation. It is a matter of history that leprosy, once the scourge of the world in the Middle Ages, searching for its victims alike on the throne and among the masses, was practically stamped out when the people, awakening to the seriousness of its ravages, put into practice a system of vigorous isolation, which, if somewhat cruel in its enforcement, was effective in its results. The disappearance of the disease was soon followed by an absolute neglect of all precautionary measures, with the result that leprosy, considered extinct in Europe in the eighteenth century, has again obtained a foothold there.

It is unnecessary to dwell here on the various circumstances (colonial expansion, extension of commerce, free intercourse with infected countries) which have brought about these conditions. It is desired to call attention to the fact that if the principle of the contagiousness of leprosy is once ignored, the spread of this affliction is only a matter of time. It is found, among many other

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instances, that in Hawaii, where no cases were heard of before the fifties, its introduction was soon followed by such diffusion that it has now become a serious problem for the Territory. In the State of Louisiana, where the disease probably had no existence 140 years ago, the number of leprous beggars in the streets of New Orleans was so large in 1786 that the authorities had to isolate them in a home established outside of the city. This measure caused, if not the eradication of the disease, at least its disappearance from sight until, owing to the apathy of the people, it recurred with unexpected violence in the seventies, and obliged the Board of Health to take immediate steps for the segregation of all known cases. In Colombia, South America, the number of afflicted persons, which was estimated forty years ago at 400, is now counted by the thousands. A similar observation has been made in Algeria. In this French colony, the disease, which was very rare as late as 1897, has shown an alarming increase since the immigration of several Spanish lepers.

No country or race is entirely free from leprosy nowadays. No climate can claim immunity from it, although it has been noted that it thrives especially in damp regions near the seacoast, and is seldom found in mountainous or elevated regions.

The United States has a relatively small proportion of cases, distributed chiefly in the four States of Louisiana, Florida, Minnesota and California. It was brought into the first two States from the West Indies, introduced in Minnesota by the Scandinavian immigrants, and in California from the Far East. A commission of officers of the Public Health and Marine Hospital Service, appointed under an Act of Congress for the investigation of the disease, could find record of only 278 cases in 1900, but it is believed that the actual number considerably exceeds these figures. The great majority of the States and Territories in the continental part of the United States requires the reporting and segregation of cases of leprosy, and classes the disease as dangerous and communicable.

This policy has been followed for some time in Louisiana, the Leper Home in that State containing about 60 patients ordinarily. In Massachusetts, where segregation is vigorously enforced, a leper hospital has recently been provided by the State. Texas made provision in 1909 for the establishment of an institution of this kind, and Porto Rico already has in operation one of a similar nature which is located on one of the small neighboring islands. The trend of opinion seems, however, to be in favor of a Federal Leprosarium in which all the lepers of the United States proper may be cared for. A bill was once introduced in Congress for this purpose, but its passage, owing to several causes, could not be secured at the time.

As experienced in Louisiana and Hawaii, there are, no doubt, great difficulties connected with a policy of segregation, but if a proper sense of responsibility can be awakened among the people these will be overcome. One which may often prove serious is the difficulty in arriving at a definite diagnosis in many cases. We had in our national capital an object lesson some time ago in a patient pronounced a leper by the local health authorities and isolated in accordance with this diagnosis (confirmed soon afterwards by one of the world's foremost experts). This patient was afterwards removed to New York and allowed to remain at large with his family. This case is only cited as an illustration of the divergency of opinion among experts and the obscurity still surrounding some of the phases of this disease.

It is partly in order to remedy this defect by obtaining a better and more accurate knowledge of all the factors involved in the solution of this problem that the United States established the investigation station on the Island of Molokai, Hawaii. This station, made possible by the action of Congress, is now in operation under officers of the Public Health and Marine Hospital Service. Studies of leprosy are being carried on there with the purpose of determining the relative value of different preparations in the treatment of the disease, and special attention is paid to the care and treatment of lepers in Hawaii. So far as can be ascertained, this is the first institution ever organized by any government for the continuous scientific investigation of leprosy, and there is no doubt that the data secured, covering as they will a vast field of experimentation, will prove of immense value in connection with all future work concerning this disease.

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PROTECTIVE MEASURES AGAINST FOREIGN INFECTION.

By PASSED ASSISTANT SURGEON R. H. VON EZDORF,
U. S. Public Health and Marine Hospital Service.

The sources of infectious diseases in a community are two, namely: those from the place itself or country in which the place is located, that is, domestic; and second, that from foreign countries.

It is my purpose to deal with the subject of the foreign source chiefly, and the preventive measures which should be taken in relation thereto. Naturally the seaport towns are the places most subject to this source of infection.

The seaports bear a greater responsibility toward the rest of the country than any inland towns because they are the gateways of commerce, and intercommunication with foreign states, and are thereby constantly menaced by foreign infection. When they protect themselves they also protect the rest of the country.

Nations are alive to this point, and in many instances the nation comes to the aid of the seaport in the sanitation of the place.

Take for example cities like Havana and Vera Cruz which in the past were endemic foci for yellow fever. Much has been done toward eliminating the stegomyia mosquito responsible for the transmission of yellow fever, and as a consequence an epidemic of yellow fever in those places will not occur again if the measures are continued. A new factor therefore enters in considering the quarantine of such places. Without the report of cases of yellow fever for a long period of time there will be no such quarantine restrictions as the detention of vessels and persons from those places as was the case in the past. This is reasonably safe, yet as those territories remain infectible so long as the factor of the stegomyia mosquito remains, an element of danger is to be considered. In former years when a case occurred there followed an epidemic giving us a warning of what was taking place and of the presence of infection. Now, however, should unknown infection creep in, its presence may not be discovered for some time, and thus its possible spread to another country may occur.

The freedom from infectious disease or rather the protection from disease from the foreign source, which if it enters may spread over the entire country, is properly a national problem.

As it has a national bearing, it seems but proper that the nation should come to the aid of the seaport and bear a portion of the responsibility.

The measures, however, which should be adopted and maintained for the protection against foreign infection may be resolved into three heads:

1. Sanitation of the seaport.
2. Quarantine.
3. Inspection of arriving individuals beyond the period of incubation of certain diseases.

For many years Surgeon-General Wyman has advocated the most logical form of protection, namely, the sanitation of the seaports. I will quote the following from his letter to Secretary Root suggesting propositions for consideration at the Third Conference of American States, held in Rio de Janeiro, July, 1906.

"In considering the possibility of an international agreement for more direct and effective influence of the national governments in local sanitation and hygiene it will be more practicable to limit such agreement to seaport cities and towns since these are the points of contact between nations."

In our own country every effort is being made to realize the best sanitary conditions, but as these have not and will not be complete for many years to come, we are forced to adopt preventive and protective measures.

The traffic between seaports is increasing from year to year, and with modern facilities for travel, the different peoples are brought intimately in contact and, therefore, offers better opportunities for the spread or importation of their infectious diseases.

The seaport city or town should be first in the matter of perfecting its state of sanitation in order that in the event a quarantinable disease should appear in its midst, it will not spread, and commerce, which is the life of a seaport, could go on unrestricted. This accomplished, naturally no fear from

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foreign infection would need be considered; besides obtaining security against infection spreading from it to a foreign port.

The Quarantine Service at each port is the next defense established to protect the seaport and nation from foreign invasions of disease. This service cannot be absolute, for many reasons, but may render a service which will restrict or better reduce to a minimum the chances of an infectious disease finding entry. At present the chief function of the Quarantine Service is to prevent the admission of quarantinable diseases, which are the following: Yellow fever, smallpox, typhus fever, plague, cholera and leprosy.

Regulations outlining measures to be adopted against vessels are promulgated by the Secretary of the Treasury upon the recommendation of the Surgeon-General, Public Health and Marine Hospital Service. These regulations are divided into: those to be observed at foreign ports; those to be observed at domestic ports.

The quarantine regulations to be observed at foreign ports are for the purpose of securing the best sanitary condition of a vessel, its cargo, passengers and crew before sailing for a port in the United States.

Under the quarantine laws vessels are required before clearing for a port in the United States to obtain bills of health from our consular officers. These bills of health give the required information to the quarantine officer in the United States port regarding the health conditions of the port, the sanitary history of the vessel, cargo, and personnel on board at the time of its issuance.

Under the same law medical officers may be detailed by the President to the consular offices to issue such bills of health and enforce our quarantine regulations to be observed at foreign ports. These medical officers are selected by the Surgeon-General, Public Health and Marine Hospital Service, and usually assigned to ports known to be infected or suspected with a quarantinable disease, or in ports having communication with such ports, whenever it is deemed that additional protection to our ports is thereby secured.

A brief résumé of these regulations may here be of interest. The officer at the foreign port issuing a bill of health is authorized to withhold it until satisfied that all the quarantine laws and regulations of the United States have been complied with. When medical officers are detailed to a foreign port bills of health are not issued by him until all the facts have been ascertained and determined by an actual inspection.

The regulations specify that an inspection is required of:

(a) All vessels from ports at which cholera, yellow fever, or plague prevails, or at which smallpox or typhus fever prevails in epidemic form.

(b) All vessels carrying steerage passengers.

The inspection includes the examination of the vessel; passengers and crew; manifests and other papers; food and water supply; information as to communication with shore; possibility of invasion by small animals, etc., to determine if all regulations have been complied with.

The regulations then take up in detail the requirements with regard to vessels, the passengers and crew, with respect to clean ports as well as ports where quarantinable disease prevails.

We have a regulation stating that no person suffering with a quarantinable disease, or scarlet fever, measles, diphtheria, or other communicable disease, should be allowed to embark.

Before passengers and crew, who have been presumably exposed to one of the quarantinable diseases by reason of its presence in the seaport or district from which they come, are permitted to embark, the following requirements must be observed:

For cholera: 5 days detention or observation, disinfection of baggage.

Smallpox in epidemic form: Vaccination or other evidence of immunity.

Typhus fever: 12 days should elapse after supposed last exposure; disinfection of baggage.

Plague: 7 days detention or observation; disinfection of baggage.

Yellow fever: 5 days detention or immunity.

All steerage baggage is labeled; a red label is used when "passed"; a yellow label is used when "disinfected." These labels bear the date and seal of the inspecting officer.

The requirements and measures to be observed on board a vessel at sea are given and are advisory in character.

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These relate to:

(a) Water closets, forecastle, bilges to be kept clean.
(b) Ventilation and cleanliness, and measures for destroying rats, mice, flies, roaches, mosquitoes and other vermin.
(c) Isolation of sick and measures to be taken with regard to quarantinable diseases as well as malaria, typhoid or dysentery cases.

Notation of all sickness is required to be made in the log, and clinical records of all cases of sickness on board delivered to the quarantine officer by the ship's surgeon.

The observance of these regulations tends to relieve the stringency of quarantine measures at the port of arrival. The quarantine regulations for domestic ports were fully considered at the Second International Sanitary Convention, but in protecting one's own port, there is a certain amount of protection, while indirect, secured to the foreign port having direct communication with it.

In dealing with vessels from foreign countries, ports are classed as infected, suspected, and clean.

All vessels from foreign ports, excepting Canadian ports, are subject to inspection.

A vessel arriving at the quarantine station is boarded by the medical officer who obtains a declaration from the Captain or Master relative to the history of the vessel, its cargo, passengers, and crew. Papers such as bills of health, manifests, and sometimes the ship's log, are examined to verify the statements. An inspection of all persons on board is made to determine as to the health of such persons.

Now these vessels are treated according to whether they have touched infected. suspected, or clean ports. If the history of the vessel is clean, and all persons on board are found to be in good health, such vessel is given free pratique to enter the port.

If the vessel is from a suspected or infected port then the regulations, governing the particular quarantinable disease, are enforced.

If sickness occurs on board, or has occurred on board sometime during the voyage, whether the vessel is from a clean port or not, the Quarantine Officer is required to determine if the illness is or was a quarantinable disease or not.

In this matter the Quarantine Officer holds an unenviable position. Should he determine or diagnose the case of illness as not quarantinable, and the illness afterwards develops as a quarantinable disease, in the seaport, it will be seen what damage or what the consequences may be.

Again if the vessel is held and treated for having a quarantinable disease, and the case afterwards proves to be non-quarantinable, considerable financial loss has been caused to the shipping interests.

A quarantinable disease may occur on board a vessel from a supposed clean port—it has occurred and will occur again. It simply necessitates constant and vigilant care, even in dealing with clean ports.

It will be seen from this that in dealing with territory regarded as clean, yet infectible territory withal, how some quarantinable disease may find entry. The individual from such place may be in good health upon arrival at the quarantine station, yet be in the incubative period of a quarantinable disease, which, developing after arrival in the seaport, may be the beginning of an epidemic, all other conditions, of course, being favorable for its spread. The importance of having the seaport in such a high degree of sanitation thereby becomes more apparent.

As vessels are arriving from supposedly clean ports, yet infectible territory, and are passing within the incubative period of a quarantinable disease, the next or third measure of defense against foreign invasion becomes apparent, namely: the surveillance of the persons arriving at the seaport until the incubative period of the quarantinable disease has passed.

At New Orleans, Mobile, and Galveston such a service has been maintained by the Government under the administration of the Public Health and Marine Hospital Service. Persons arriving from a foreign tropical port were inspected daily until six (6) days had passed since their leaving the last foreign port, or in other words, the last source of possible exposure to infection of yellow fever; this being the disease in which the Southern ports are chiefly concerned.

A discussion of the practice followed at the New Orleans Quarantine Station may be of interest in this connection.

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The traffic has been chiefly with tropical ports where yellow fever has prevailed in the past, and which territory still remains infectible considering the factor of the presence of the stegomyia to make it such. The inspection of all persons from these tropical ports consists in a careful visual inspection, and the taking of the temperature by clinical thermometer of each and every individual. When a person was found with a temperature of 37.3 C., equals 99.2 F., or over, he was held to one side subject to a second and more critical inspection. If the temperature was 37.8 C., equal to 100 F., or over, the individual was removed from the vessel to the Quarantine Hospital for observation and treatment. In case the individual presented some symptom regarded as suspicious of a quarantinable disease, the vessel, though from a supposed clean port, and otherwise clean history, was held pending the diagnosis of the case. If there was no symptom indicative of a quarantinable disease, yet with fever present as indicated by the temperature, the Quarantine Officer assumed the responsibility that no quarantinable disease was complicating the case, and, therefore, allowed the vessel to proceed, detaining the individual for observation.

As the individual is the main factor, if not the chief source in spreading disease, the detention and isolation of a sick individual with an infectious disease is the best that can be accomplished. The isolation of a known source of infection entirely eliminates that source for further spread.

During the period April 1, 1907, to December 1, 1909, there were removed to the New Orleans Quarantine Station Hospital 395 persons for observation. None of these presented a quarantinable disease. The following is a partial list of the diseases treated:

Malaria	112 cases
Of which 54 were of the æstivo autumnal variety.	
Typhoid fever	29 cases
Tuberculosis	11 cases
Beri-beri	1 case
Mumps	1 case
General diseases	241 cases

How much good for the port of New Orleans was accomplished by the isolation of these cases may be only conjectured.

Under the Quarantine Regulations the following regulation appears:

"Par. 67. When a vessel arriving at Quarantine has on board any of the communicable but non-quarantinable diseases the Quarantine Officer shall promptly inform the local health authorities of the existence of such disease aboard, and shall make every effort to furnish such notification in ample time, if possible, to permit of the case being seen by the local authorities before discharge from the vessel."

The health authorities may or may not take measures for protecting themselves against foreign infectious disease; they may have enough to attend to in their own community. Certainly they should not be required to take care of this foreign source of infection. The nation is as much interested as they are that the seaport be as free from infection as possible, as this same infection may be the source of spread to places outside of the seaport city, that is to another foreign port, or interior points. I believe it should be the function of the nation to protect them and, therefore, isolate all such persons upon arrival with an infectious disease in the active stage of illness at the Quarantine Station. Naturally we could not apply this to persons in the incubative period of such disease as we have no practical way of determining that point. I do not wish to have it understood that I mean that quarantine restrictions should be applied, but only the individual arriving in the active period of some disease supposedly infectious. Such measures as proposed would affect but a small per cent of persons, and, therefore, be no particular hardship; certainly our people would profit thereby, and that, after all, is the purpose of maintaining protective measures.

I have given only a list of those detained; a list of those passed may give an idea also of what has to be contended with.

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During the fiscal year July 1, 1908, to July 1, 1909, the following is a list of diseases in persons passed on vessels:

Typhoid fever	6 cases
Malaria confirmed microscopically	19 cases
Tuberculosis confirmed microscopically	6 cases
Pneumonia	3 cases
Dysentery	1 case
Impetigo contagiosa	1 case
General diseases	35 cases
Scarlet fever (from a domestic port)	1 case

The individual suffering from any disease not quarantinable, once passed, will seek his own medical attendance or advice, as he sees fit, or continue his voyage to some interior point, provided, of course, that the particular disease is not quarantinable under the local sanitary regulations.

On an average, about 41,000 crew and 10,000 passengers are inspected at this station each year. Of this number an average of about 132 persons were detained, chiefly made up of members of crews, leaving but a small fraction of a per cent of passengers detained.

It appears to me, therefore, that the function of a quarantine station should be extended to isolating all cases of fever and detaining them if they prove infectious. I would include malarial fever, as the territory of the South has *anopheles* mosquitoes and, therefore, may increase this form of infection. Persons suffering with malaria or tuberculosis would receive instructions as to the care to be taken in avoiding the spread of their infection. Tuberculosis is already barred under the immigration laws, that is, in the alien; but there are Americans who are ignorant of their affection; likewise aliens apparently in good health have been discovered by means of the thermometer, and thus cases of laryngeal tuberculosis has been discovered in the incipiency of the disease. These persons would pass ordinary muster.

I would, therefore, conclude that the elimination of the foreign source of infection is an important factor for the community, and particularly a seaport city or town; that the sanitation of such city is of first importance, and failing perfect conditions, protective measures for eliminating the source of foreign infection is essential, and the only other measures which can be adopted or are practicable are the two mentioned and discussed.

That quarantine service be extended to include as its function the isolation of all infectious diseases, so far as practicable, arriving on vessels, in addition to its main function of preventing the admission of the quarantinable diseases. That the inspection of individuals landing at the port of entry be under surveillance for a period of time to intercept any person in the incubative period of some transmissible disease.

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REPORT OF THE DELEGATION OF VENEZUELA, COMPOSED BY DOCTORS P. ACOSTA ORTIZ AND LUIS RAZETTI.

Mr. President and Messrs. Delegates of the Conference: In compliance with the provisions of the provisional program for this International Sanitary Conference of the American Republics, we have the honor to present the following:

Report in Regard to the Sanitary Conditions in Venezuela.

Venezuela, being located in the extreme end of South America, between 1° 40′ south latitude and 12° 26′ north latitude, is found fully within the tropical zone. Its extensive area of 1,552,741 square kilometers is occupied by a small population of 2,323,527 inhabitants. The climate of the country varies according to the elevation over the sea level. In the cold lands of the Merida Mountains, whose highest peaks raise up to 4,526 meters, the thermometer registers 2 or 3 degrees centigrade below zero; in temperate lands the temperature ranges from 18 to 35 degrees centigrade; and in the hot lands it varies between 25 and 32 degrees centigrade. Its vast plains, which cover an area of over 400,000 square kilometers, are flooded during the rainy season, and when the waters withdraw there are left big swamps which make splendid breeding places of mosquitoes, the means of transmission of malaria, the great endemic of the tropical countries.

Besides malaria, there prevail in Venezuela all the diseases which are characteristic of the intertropical zone, to wit: Yellow fever, dysentery, beri-beri, leprosy, phylariosis, ankylostomiasis, pustule, etc.; there are also other endemic diseases, such as tuberculosis, typhoid fever, syphilis, etc.

Up to 1908 the bubonic plague had not invaded our country. On account of the importance of this disease in regard to international relations, we believe it our duty to begin this report with a succinct statement concerning the development of that epidemic.

PLAGUE IN VENEZUELA.

THE EPIDEMIC IN LA GUAIRA.

Venezuela had been immune from plague up to the early part of 1908, and it was introduced in the country through La Guaira, the principal port of the Republic, distant 28 kilometers from the capital. Just as it happened everywhere else, the first cases passed unnoticed by the sanitary authorities. It was in the month of April when the bacteriologist, Doctor Rafael Rangel, who had been purposely sent by the Government to study the nature of the disease, unknown to the physicians in the country, determined its diagnosis.

It is not definitely known how the disease was introduced in our country. The most correct opinion is that it was brought by the Italian steamer "Cita de Torino," which, coming from Colon, landed the cadaver of a priest from Guayaquil, a port at that time infected by the plague. The four men who buried his body were the first to be attacked by the disease, but as it was unknown then, no diagnosis was made.

On April 15, 1908, Doctor Rangel, after careful investigations, was able to verify the nature of the disease, and from that day on the campaign against the scourge was undertaken. That campaign consisted of the isolation of patients in the lazaretto, the disinfection of dwellings, the immunization with Yersin serum of persons living in infected houses; the systematic destruction of rats; the inoculation of Haffkine Lymph into all inhabitants of the city, and the enforcement of the general rules of public and private hygiene.

The movement of the lazaretto of La Guaira, from April 15th to July 10, 1908, was as follows:

Total number of cases		64
Men	40	
Women	9	
Children	15	
According to the forms of the disease:		
Bubonic plague		48
Pneumonic plague		6
Septicemic plague		2
Associated plague		8

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Of these 64 cases, 38 died, which is equivalent to a general death rate of 59.37 per cent. However, in cases treated from the beginning with high-dosed serum and by extirpation of the infected ganglions, the mortality decreased to 16.66 per cent, as was proven by Dr. F. Mendoza.

It is impossible to determine the exact number of cases of plague that occurred in La Guaira from the middle of January to April 15, 1908; but it is estimated at 25, which gives a total of 89 cases in the epidemic of said port.

On July 10, 1908, the lazaretto of La Guaira was closed, and since then not one single case of plague has been recorded, nor was the disease found in rodents. The epidemic of La Guaira lasted 6 months only, due to the efforts exerted by the Government, nobly assisted by the merchants.

In the plan of La Guaira, annexed to this report, are marked the principal foci of the plague.

THE EPIDEMIC IN CARACAS.

The proximity of La Guaira rendered the infection of Caracas imminently dangerous, and all preventive measures were adopted for the purpose of warding it off; railroad traffic was interrupted and a sanitary cordon was established along the roads traversing the Avila Peak. But, in spite of this measure, several persons from La Guaira were smuggled into the capital.

The first case appeared on April 18, 1908, it being that of a woman who lived in the neighborhood of the railroad station, and who was in touch with the port through her relatives employed in the railroad line. The house in which that woman lived is marked in the plan with a special sign.

The movement of the epidemic in Caracas was as follows:

Total number of cases from April 18, 1908, to October 2, 1909....		107
Men	83	
Women	24	
Patients under 15	16	
Patients over 15	91	
According to the forms of the disease:		
Bubonic plague	83	
Bubonic and pneumonic plague	12	
Pneumonic plague	4	
Septicemic plague	6	
Pneumonic and intestinal plague	1	
Generalized bubonic plague	1	

Number of cases cured, 62; number of deaths, 45; death rate, 42 per cent.

According to months, the distribution of the 107 cases reported in Caracas is as follows:

1908. Month.	Cases.
April	2
May	1
June	13
July	24
August	18
September	12
October	8
November	0
December	0
	78

1909. Month.	Cases.
January	3
February	1
March	0
April	0
May	4
June	12
July	2
August	5
September	1
October	1
	29

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The history of the epidemic in Caracas is divided into three periods: First, from April 18th to October 20, 1908; second, from October 20, 1908, to May 20, 1909; third, from May 20th to October 2, 1909. In the first period there were 78 cases in seven months; in the second, four cases in seven months; in the third, 29 cases in six months.

This intermittent development of the epidemic shows that the plague has periods of recess between epochs of recrudescence, and that the disease has disappeared as a human epidemic for several months, to reappear in a more benign form, as was the case in Caracas. This movement of plague epidemic advises that the fight against rats should never be abandoned, as the disease persists for a longer time in those rodents. In Caracas the campaign against rats was never interrupted from the very beginning of the epidemic; for the destruction of these dangerous animals we have availed ourselves of all known means, giving preference to the measures which have for object the annihilation of the race (see general ordinances for the defence of Caracas against plague, annexes B and C).

In the present moment it can be said that there is no real plague epidemic in Venezuela, because the proportion of 0.66 per cent of infected rats and the absence of new cases of human plague clearly show that the disease is well under way of completely disappearing.

The plague in Caracas has not reached the degree of lethality which is common to this disease, as is proven by the death rate, 42 per cent, and the small number of cases, 107, in a population of 100,000 inhabitants.

In our country a fact has been noticed to which we beg to call the attention of the honorable members of this assembly. For two years the plague has existed in the Federal District (Caracas and La Guaira), which is the commercial and political center of the Republic; during that time there was no interruption in the communication with the interior nor in the coastwise traffic between La Guaira and other ports on the Caribbean coast, and, in spite of it all, the disease did not appear in any other place in the country, neither in the ports nor in the interior towns, many of which are connected with the capital by railroad.

This confinement of the epidemic to one single region of the country is due to the combined action of the means of defense enforced by the sanitary authorities, to wit: Rapid isolation of all patients; systematic destruction of rats; preventive inoculation of Haffkine lymph, which was made compulsory to all the inhabitants, and especially to those who, by reason of their occupation, had to enter infected cities.

We also beg to call attention to the fact that there has not been observed in Venezuela, as elsewhere, an excessive mortality among rats notwithstanding the abundance of such animals in the country. The mildness of the disease in these rodents perhaps accounts for the limited development of the disease in man.

Besides, all cases of plague were among persons who lived under unfavorable hygienic conditions; such persons as were careful of their personal and domestic hygiene have remained immune. This fact corroborates the theory that plague is a disease prevalent among the low and uncleanly classes, and people who live in dirty dwellings. The contagion can be avoided by means of the simple observance of the rules of personal and domestic hygiene.

PROPHYLAXIS.

In La Guaira, as well as in Caracas, the campaign against plague was established in accordance with the modern scientific principles concerning the etiology of the plague, preference having been given to those measures which gave the best results in other places.

This campaign was based upon the following principal points:

First. Isolation of the patient in the lazaretto or in his own home when the enforcement of the rules for isolation was assured.

Second. Immunization of all tenants of infected houses and houses near thereto by means of the Yersin serum.

Third. Destruction of rats in the said houses (this operation was executed by the sanitary squads).

Fourth. Immunization of all the inhabitants of the city by means of the

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Haffkine lymph. No inhabitant was allowed to abandon the city without producing a certificate of immunization.

Fifth. Systematic sanitary inspection of houses by health inspectors for the purpose of investigating the sanitary conditions of dwellings, and of enforcing the measures enacted by the Commission of Hygiene.

Sixth. Constant persecution of rats by all known means (see annex B).

Seventh. Careful disinfection of infected houses and others near thereto.

For the purpose of enforcing these provisions the Commission of Public Hygiene enacted an "Ordinance for the Defence of Caracas Against Plague," and prepared the instructions to the sanitary personnel for the execution of their duties (see annexes B and C).

Thanks to the activity displayed by the sanitary authorities and to the support given them by the Government, the merchants and other citizens, plague has not caused in our country the ravages that it has spread in other places. One hundred and seven cases in 18 months with a death rate of 42 per cent is a sufficiently satisfactory result, especially if we take into consideration that when the epidemic first broke out we had not a regular sanitary organization, and everything had to be improvised.

In La Guaira the epidemic lasted scarcely six months, and since July 10, 1908, not one single case of human plague has appeared, nor has the disease been found in rodents.

TREATMENT.

Our plague patients have been systematically treated with the Yersin serum by intravenous or subcutaneous injections at high doses, according to the gravity of the case. In mild cases colargol was used with very satisfactory results.

Besides the serotherapic treatment, and following the advice of Prof. S. Cantile, of London, the infected ganglions, especially the inguinal ones, were extirpated in the beginning of the development of the disease. When the extirpation was performed before the first 48 hours they succeeded in decreasing the death rate down to 16.66 per cent.

No treatment is available in serious cases of pneumonic and septicemic plague.

PRESENT CONDITION OF THE EPIDEMIC.

The present condition of the epidemic in Venezuela is as follows:

La Guaira.—The disease disappeared from this port on July 10, 1908, and since then not one single case of human plague has been recorded, nor has the disease been found in rats.

Caracas.—The epidemic in the capital is now under control. In 1909 only 29 cases of human plague have been reported, with a mortality of 38 per cent; the proportion of infected rats is 0.66 per cent. As the campaign against these animals is carried on with the same activity, rats from all points of the city are examined in the bacteriological laboratory, and the inspection of houses is constantly made. We believe that we can consider ourselves protected against a reappearance of that epidemic disease.

In no other city of the Republic has plague ever existed, nor does it exist at present. In none of our ports is there to-day any infectious quarantinable disease. Notwithstanding the satisfactory sanitary condition of the Venezuelan coast, the health authorities of Colon treat the vessels arriving thereat from all ports just as if they came from plague infected places. This procedure is not in accord with the stipulations of Articles IX of the Convention of Washington, and we beg to call the attention of this learned assembly to that fact.

YELLOW FEVER.

Although yellow fever prevails endemically in Venezuela, not only in some ports of the littoral, such as Puerto Cabello, Maracaibo, Ciudad Bolivar, etc., but also in towns distant from the coast, even in some high altitudes, as Caracas, Valencia, and others, we must recognize that the disease has not, however, the gravity nor the frequency observed in other countries where it prevails.

In 1907 yellow fever produced throughout the Republic a total of 31 deaths, of which 16 were reported in the Federal District, 2 in the State of Aragua; 8 in the State of Bolivar; 3 in the State of Merida; 1 in the State of Miranda, and 1 in the State of Trujillo.

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The recrudescence of the disease is noticed especially in certain seasons of the year, and in some years more than in others.

The hot months and unsettled atmospheric conditions favor the development of the disease; and the facilities of communication have brought the infection to places where it was unknown, as was the case some years ago in certain towns of the Andes Mountains, many of them situated at a high altitude.

Besides the measures usually taken in cases of transmissible diseases, the Commission of Public Hygiene has recently initiated a campaign against mosquitoes and distributed a pamphlet with popular instructions for that purpose; it has isolated the patients with a view to protect non-immune persons, and it has disinfected all infected houses and neighboring villages.

The Regulations of Maritime Sanitary Police in force prescribe the treatment to be applied in our ports to passengers, baggage and merchandise from infected vessels, in accordance, of course, with the Convention of Washington of 1905, as applied to international relations, as well as to the coastwise traffic.

MALARIA.

Malaria is our great national endemic; not only does it carry away many thousands of lives every year, but it also weakens considerably the organism of those whom it does not kill, leaving them in a state of physical and general weakness which impress a special stamp upon those unfortunate inhabitants of the vast regions where this scourge prevails. This disease occurs among us under all its forms and varieties.

With the exception of some high lands and other places where the *anopheles* probably does not exist, as is the case in Caracas, for instance, the disease prevails in almost all the littoral of the country, and very especially in our plains, which are immense and mostly uninhabited, and which is in its greater part the cattle region of Venezuela; its area, covering many thousands of square kilometers, has many swamps the sanitation of which is practically impossible.

The same is true of the lands traversed by our rivers, wherein malaria increases in the beginning of the winter, when the waters start to withdraw, which, together with a very high temperature, creates the best conditions under which the disease could be augmented and propagated.

For these reasons we have not been able to fight malaria successfully up to the present day, and also on account of the expense attached to such a campaign, which could not be borne out by the State Government.

Hemoglobinuric fever, considered by many of our physicians as having a malarial origin, has caused many ravages during the last years, especially in the States of Guarico and Apure, although only since 1870 have we definite information as to its appearance among us, and it was spread with greater force after the civil war of 1892.

The Society of Physicians and Surgeons of Caracas issued in 1894 a circular to the physicians of the towns where the so-called hematuric fever was prevalent, and some interesting papers in regard to the subject have been discussed in the National Academy of Medicine, on various occasions, for the purpose of elucidating its intimate nature, and of establishing an adequate prophylaxis and treatment.

The Commission of Public Hygiene has recently submitted to the legislature a bill for the protection of public health, together with a comprehensive scheme in regard to the serious problem of malaria, and the raising of funds for the maintenance of a campaign against malaria.

BERI-BERI.

It may be stated that until about 35 years ago beri-beri was a disease completely unknown in Venezuela.

The first cases of the disease appeared in Ciudad Bolivar, and at the beginning they were not diagnosed because the disease had not been previously observed.

Dr. Pedro I. Aguerrevere published in 1882 an interesting paper in regard to the subject, and it was he who for the first time explained the existence of beri-beri among us.

It is very probable that the importation of the original cases was perfected through ships arriving at Ciudad Bolivar, or, what is perhaps more probable, through the Brazilian frontier.

Afterwards, the disease was propagated to the States of Apure, Guarico, and

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Zanora, reaching also the State of Miranda, which bounds with the Federal District.

The diversity of its forms sometimes renders the differential diagnosis difficult, especially in certain neuritis, of a doxic or infected nature, and even with the varieties of malarial caquexia and probably of ankylostomiasis.

Leprosy was first introduced in Venezuela in 1730 by a family from the Canary Islands residing in Cumana, and it was afterwards transmitted to Caracas in 1740, to Maracaibo in 1804, and to Carupano in 1820.

At present it prevails in some points of the eastern coast and in the States along the Colombian frontier.

With the measures that have been taken to prevent its propagation, and with the isolation of the patients in especial asylums, its range has not increased, being confined to certain regions only.

There are two leper colonies, one in Maiquetia, near Caracas, and another in Providencia Island, near Maracaibo, State of Zulia. In these establishments all the lepers of the Republic are isolated, and the total of patients in both of them varies between 500 and 600.

TRACHOMA.

Since 1894 one of our distinguished oculists, Dr. Couturier, called the attention of the public to the granular conjunctivitis and to the frequency with which it occurred among the Assyrian immigrants arriving at our ports.

Those Turks, as they are called among us, live conglomerated in small filthy rooms, but the disease has not spread much and its cases are mostly confined to those people and to persons equally untidy.

According to Doctor Dagnino, another one of our good specialists, the majority of our streets and houses, which are well lighted and ventilated, would not be adapted to the propagation of trachoma, the favorite places of which are dark rooms and damp streets where the sunlight never enters, as it happens in certain districts of the great cities.

The Directors of Health of our ports, and especially of La Guaira, at which the said immigrants arrive, are instructed to prevent the introduction of those suffering from this disease, and several individuals have been returned to the country of origin on that account.

SMALLPOX.

After the invasion of smallpox in the 16th century, through the port of Caraballoda, on the coast of La Guaira, which decimated the native population, the disease reappeared in 1776, entering through the east and spreading throughout a great portion of the country, where it made thousands of victims, due, of course, to the lack of preventive measures and to the state of ignorance in those times.

Since the beginning of the last century, when there was a small epidemic, it may be said that smallpox was almost unknown in Venezuela until 1896, in which year a case was imported through Puerto Cabello that caused the epidemic of Valencia, and which was propagated very rapidly, invading many towns of the Carbobo State, causing a great mortality among the patients, due to the lack of immunization and the scarcity of vaccine.

When the disease was near Caracas, the Pasteur Laboratory, a private institution established by Drs. Dominici, Guardia, Meier, Rodriguez and Acosta Ortiz, was commissioned by the National Government to prepare vaccine in large quantities, and it is thus that animal vaccine was manufactured for the first time in our country. The virus was sent throughout the whole country, after a sufficient amount had been taken for the inoculation of all the inhabitants of Caracas and neighboring towns, where the epidemic appeared in a very mild form.

Since then the virus is periodically distributed throughout the Republic by the Department of Interior Affairs.

Annex E contains the decree making vaccination compulsory. The construction and organization of the Institute of Vaccine, referred to in the said decree, will soon be undertaken.

DYSENTERY.

Dysentery of amœbic origin is frequent in some regions of the country whose climatic conditions are favorable to its development.

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The same is true of the tropical abscess of the liver, due to the same etiological cause, in regard to which malady several very interesting papers have been published by our scientists, most of them from the School of the Vargas Hospital of Caracas.

CHOLERA.

Cholera is unknown in Venezuela.

MORTALITY IN CHILDREN.

In Venezuela about 3,000 children under three years die annually, due principally to poor food among the low classes of the people.

For the purpose of fighting this evil the institution known as "La Gota de Leche" (The Drop of Milk) was founded on the 24th of July of this year.

The creation of such a useful philanthropic establishment is due to the private initiative of a physician, Dr. J. de D. Villegas Ruiz, and has the support of the Government and several private persons. It has now 400 children in its lists. They are furnished with sterilized milk of excellent quality. The mothers are advised in regard to the rules of nursing and the hygiene of the child.

A board composed of prominent persons of both sexes manages the institution, from which the country will derive great benefit. As is well known, infant mortality is one of the principal causes that hamper the normal development of communities, especially in countries which have not as yet attained a high degree of civilization. Besides infantile diarrhea, tetanus neonatorum causes a considerable number of deaths in tropical countries. In Venezuela this disease is credited in our demographic statistics with 4,000 deaths per annum. This disease has no other cause than the ignorance of mothers. The only effective means of overcoming that cause is the hygienic education of women in public schools.

TUBERCULOSIS.

The mortality caused by tuberculosis is represented by a number of about 5,000 deaths per year.

On July 5, 1905, Dr. Andres Herrera Vegas founded the Venezuelan League against Tuberculosis, the dispensary of which was opened on April 10, 1906.

This institution has the support of prominent persons and is maintained by private individuals. It fulfills its mission by means of printed propaganda and popular lectures; it publishes a periodical called "La Liga Antituberculosa," edited by Dr. Herrera Vegas himself, and is freely distributed to the public.

Up to November 30th of the present year the dispensary treated 4,000 patients, who were given medicines and monetary help, and whose rooms were disinfected. For this purpose the dispensary is provided with modern disinfecting apparatus.

The 4,000 patients treated in the dispensary are distributed as follows:

According to age:

From 0 to 1 year	313
From 1 to 10 years	981
From 11 to 20 years	1,004
From 21 to 40 years	1,296
Over 40 years	366
	4,000

According to state:

Married	1,568
Single	2,006
Widow	468
	4,000

According to sex:

Men	1,289
Women	2,711
	4,000

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According to the forms of the disease:

Affected in one lung	617
Affected in both lungs	428
Laryngeal tuberculosis	48
Intestinal tuberculosis	104
Other forms	287
Scrofula	1,946
Rickets	176
Suspected and under observation	638

ORGANIZATION OF THE PUBLIC HYGIENE.

Public hygiene in Venezuela is organized as follows:

There is in the capital of the Republic a commission of eight members: six physicians, one engineer and one lawyer. This Commission is under the direct supervision of the Department of Interior Affairs. The Bureau of the Commission is divided into nine sections, to wit: First. *Maritime Sanitary Police*—international hygiene, quarantine, lazarettos, etc. Second. *General Sanitation*—sanitary inspection of houses, markets, slaughter-houses, etc. Third. *Special Disinfection*—contagious diseases, distribution of serum and vaccine, etc. Fourth. *Bacteriology*—microscopical analysis, preparation of serums and vaccine, etc. Fifth. *Chemistry*—chemical analysis of water, food products, beverages, etc. Sixth. *Engineering*—construction of buildings, sewers, aqueducts, pavements, etc. Seventh. *Demographic Statistics.* Eighth. *Sanitary Legislation and Social Hygiene.* Ninth. *Office of the Secretary and General Administration.* Each of these divisions is under a member of the Commission.

The central office employs official health officers, sanitary inspectors and sanitary squads, charged with the inspection of houses, disinfection of dwellings, destruction of rats and mosquitoes, and with the enforcement of provisions enacted by the Commission of Public Hygiene.

The Commission has a disinfecting station provided with two Clayton apparatus, type H, three formol-steam generators, three antiseptic sprays and three whitewashing sprays.

This station is managed by a physician as chief of the service. He has under him a mechanician for the operation of the apparatus and a special squad of operators who are skillful in disinfections. As soon as a case of any disease the reporting of which is compulsory is known the disinfection of the house is made and isolation measures taken in accordance with each case.

Each sanitary inspector visits every day fifteen houses of those within his jurisdiction and fills a special bulletin in which are stated the sanitary conditions of each dwelling. The respective health officer informs the civil authority of the town as to the sanitary measures needed in each house, and compels the owner thereof to carry them out within a fixed period which cannot be extended.

In this inspection of houses destruction is carefully made of rats and mosquitoes.

The Commission of Public Hygiene has now under consideration the sanitary regulation of markets, slaughter houses, dairies, schools, etc.; the Commission did not carry out this important work before because the campaign against the plague necessitated its undivided attention.

It is also studying the proper measures for the eradication of malaria, dysentery, yellow fever, tetanus, and other diseases peculiar to intertropical countries.

COMPULSORY REGISTRATION OF INFECTIOUS DISEASES.

An executive decree provides for the compulsory registration of the following diseases: Typhoid fever, exanthematic typhus, malaria, smallpox, varioloid, measles, scarlet fever, whooping-cough, dyphtheria, miliary fever, Asiatic and nostras cholera, epidemic dysentery, plague, yellow fever, leprosy, erysipelas, beri-beri, trachoma, filariosis, puerperal infections, ophthalmia neonatorum. The registration of tuberculosis, grippe, syphilis and enteritis is discretional (see annex D).

SANITATION OF PORTS.

Venezuela has a law of Maritime Sanitary Police based upon the prescriptions of the Convention of Washington.

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By virtue of this law the littoral of the Republic is divided into sanitary zones which are in turn subdivided into health agencies. In each port of entry there is a health board composed of a physician as Director of Health, the Collector of Customs, the Civil Chief of the District, the President of the Municipal Council, and a merchant appointed by the Chamber of Commerce (see annex A).

There are now under construction disinfecting stations for the ports of La Guaira, Puerto Cabello, and Carupano, provided with Clayton apparatus and formol generators for the systematic disinfection of baggage belonging to passengers arriving at or leaving the country.

DEMOGRAPHIC STATISTICS.

In Venezuela the diseases which have caused the greatest number of deaths are: Malaria, tuberculosis, dysentery, tetanus, infantile diarrhea, ankylostomiasis, yellow fever, etc. Yellow fever, although endemic in the coast region, does not contribute noticeably to increase the mortality; there are scarcely thirty deaths from yellow fever annually throughout the country (see annex F).

The most deathly of all tropical endemics is malaria. In Venezuela it is credited with one-fifth of the general mortality. Malaria is the one great enemy of progress in tropical countries, not only on account of the number of deaths which it causes, but also because its chronic forms convert the patients into mere valetudinarians. The Commission of Hygiene is at present studying practical means of fighting that dreadful scourge; nevertheless, it is well aware of the great difficulties which confront it in the undertaking of such a task, because the campaign against this endemic must necessarily include an area of over 400,000 square kilometers covered by our plains, wherein malaria is endemic.

The general movement of the population during the last four years was as follows:

Year.	Births.	Deaths.	Difference in favor of births.
1905	68,978	58,343	10,635
1906	70,221	53,801	16,420
1907	74,324	52,310	22,926
1908	71,033	57,088	13,033

The annual averages are: Nativity, 31.1 per thousand; mortality, 25 per thousand; marriage, 2.6 per thousand.

ANNEXES TO REPORT.

Annex A.—Law of Maritime Sanitary Police.
Annex B.—General Ordinances for the Defence of Caracas against Plague.
Annex C.—Instructions to Sanitary Officers.
Annex D.—Decree Making the Registration of Infectious Diseases Compulsory.
Annex E.—Decree Making Vaccination Compulsory.
Annex F.—Venezuelan Demography.

PLANS.

Topographic plan of the city of Caracas showing the plague foci in the epidemic of 1908-9.

Topographic plans of the cities of La Guaira and Miqueti, showing the plague foci during the epidemic of 1908.

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